

AMERICAN SOCIETY OF CIVIL ENGINEERS

INSTITUTED 1852

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from Non-Residents of North America until the expiration of ninety (90) days from March 1, 1924.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirement	Age	Length of Active Practice	Responsible charge of work
Member	Qualified to design as well as to direct work	30 years	10 years*	5 years
Associate Member	Qualified to direct work	25 years	6 years*	1 year
Junior	Qualified for sub-professional work	18 years†	2 years*	
Affiliate	Qualified by scientific acquirements or practical experience to co-operate with engineers			
Fellow	Contributor to the permanent funds of the Society			

* Graduation from a school of engineering of recognized reputation is equivalent to 2 years' active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

AMERICAN SOCIETY OF CIVIL ENGINEERS INSTITUTED 1852

LIST OF APPLICANTS.

Names and Addresses of Applicants for Admission and for Transfer on this Preliminary List, Arranged Alphabetically.

NAME	ADDRESS	PAGE	NAME	ADDRESS	PAGE
ADSDT, CHARLES G.	Atlanta, Ga.	57	MCCLUSKEY, WM. O., JR.	Wheeling, W. Va.	87
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ALVAREZ DE URRUTIA A. M.	Havana, Cuba	89	MCKENZIE, ALEXANDER M.	Detroit, Mich.	70
BEATTY, ROBERT	Trenton, N. J.	57	MAINE, HERBERT A.	Waterloo, Iowa	70
BINGHAM, CLARENCE A.	Lima, Ohio	83	MANCHESTER, BURGESS	Omaha, Nebr.	71
BLANCHARD, ARTHUR D.	Bloomfield, N. J.	58	MERRILL, WALTER S.	New York City	87
BORGQUIST, ERASMUS S.	Salt Lake City, Utah	84	MOORE, WALTER A.	Welland, Ont., Can.	71
BORSTELMANN, LOUIS J.	Greensburg, Pa.	90	MOWER, LELAND M.	San Francisco, Cal.	90
BOSARD, RALPH	Memphis, Tenn.	84	NARASIMHAM, RASIPUR D.	Madras, India	71
BRADSHAW, GEORGE W.	Lawrence, Kans.	58	NELSON, HARRY M.	New York City	71
BROWN, ROBERT K.	Salt Lake City, Utah	85	NICKEL, EDWARD A.	Berkeley, Cal.	72
BRUHN, ELMER F.	Golden, Colo.	58	NOBLE, HAROLD A.	Chicago, Ill.	72
CAMERON, WILLIAM P.	Philadelphia, Pa.	58	OLDHAM, JENNINGS B.	Dallas, Tex.	72
CAMPBELL, CHARLES I.	Casper, Wyo.	59	ORMSBE, DAN W.	Oakland, Cal.	72
CLEVELAND, ERNEST A.	Victoria, B. C.	59	ORR, JAMES L.	Norton, Va.	87
COHEN, JACOB X.	Syracuse, N. Y.	85	PARRY, CHARLES E.	Glenside, Pa.	73
COOPER, JOHN E.	Brooklyn, N. Y.	59	PETERMANN, HANS A.	Milwaukee, Wis.	73
CRANE, ERNEST B.	Seattle, Wash.	85	PICKELS, GEORGE W.	Urbana, Ill.	74
CRAYENS, ROLLAND P.	Wichita, Kans.	60	PROCTOR, CLARENCE D.	Somerville, Mass.	74
DALTON, HARRY F.	New York City	60	RAITT, JOHN W.	Norfolk, Va.	74
DAVE, JOSEPH E.	Ashville, N. C.	60	RAYNER, WILLIAM H.	Urbana, Ill.	74
DAVIS, CLARE A.	Baltimore, Md.	60	REES, GEORGE D.	Kansas City, Kans.	75
DAVIS, DELL B.	Richmond, Ind.	61	REEVES, WILLIAM H.	Jacksonville, Fla.	75
DE LEUW, CHARLES E.	Chicago, Ill.	86	RIGHTS, THEODORE B.	Roselle, N. J.	75
DE WITT, DOUGLAS H.	Oradell, N. J.	61	RIVKIN, BERNARD M.	Hyde Park, Mass.	75
DRYFOOSE, EARL D.	Springfield, Ill.	61	RODEGERDTS, CHRIS A.	San Francisco, Cal.	76
ESTES, LEWIS A.	Indianapolis, Ind.	86	RUFF, CHARLES F.	Forest Hills, N. Y.	91
FARWELL, HERBERT F.	Worcester, Mass.	61	SARAFOGLOU, ANESTIS G.	Constantinople, Turkey	76
FEARING, ALBERT J.	New Rochelle, N. Y.	61	SCHMIDT, LOUIS	New York City	76
FISHER, ROBERT F.	Urbana, Ill.	62	SEBASTIAN, WALTER	Philadelphia, Pa.	77
GELBMAN, WILLIAM C.	New York City	62	SIMBERG, HARRY	Brooklyn, N. Y.	77
GILLIN, ELBERT T.	Mauli, Hawaii	62	SIMMONS, DONALD J.	Vicksburg, Miss.	77
GILMAN, JAMES M.	Seattle, Wash.	86	SIMMONS, HAROLD	South Orange, N. J.	77
GILROY, URBAN B.	San Francisco, Cal.	62	SMITH, JOSEPH W.	Montclair, N. J.	78
GISBERG, PAUL E.	Jackson, Mich.	63	SPELMAN, HOWARD R.	Rockville Centre, N. Y.	78
GOULD, HARLEY J.	Madelra, Ohio	63	SQUIRE, EDWARD J.	Brooklyn, N. Y.	88
HARRUB, CALVIN N.	Nashville, Tenn.	63	STARR, CHARLES F.	Rochester, N. Y.	78
HASTE, COLEMAN L.	Memphis, Tex.	64	STECKELBERG, WM. D. J.	Madison, Nebr.	78
HAYDEN, JACKSON B.	Nutley, N. J.	64	STEPHENSON, ROBERT	San Pedro de Macaris, D. R.	79
HERSEBERG, BEN B.	New York City	64	SULLIVAN, DANIEL M.	East Boston, Mass.	79
HIBBS, ALBERT S.	Akron, Ohio	64	SUN, YU-FONG P.	Tientsin, China	91
HICKS, FRED L.	Willow Springs, Mo.	64	SURVEYOR, ARTHUR	Montreal, Que.	79
HIGGINSON, CLARENCE H.	New York City	65	SUTHERLAND, EDWARD F.	San Francisco, Cal.	80
HOLLAND, THOMAS L.	New Orleans, La.	65	THOMASON, GEORGE A.	Montgomery, Ala.	80
HOLMES, WILLIAM H.	Modesto, Cal.	66	THOMPSON, JOSEPH T.	Baltimore, Md.	80
HOPSON, WILLIAM H.	Brooklyn, N. Y.	66	VAN DER MEIJ, JAN C.	San Francisco, Cal.	81
HORNER, OLIVER H.	Kansas City, Kans.	66	WAGNER, FRANK	Bradford, Conn.	81
HORSTMAYER, HARRY E.	New York City	67	WENTWORTH, JOHN P.	Boston, Mass.	81
HULL, WILLIAM H.	New London, Conn.	67	WHITE, AMBROSE H.	New York City	82
HUNT, EDWARD M.	Portland, Me.	67	WICKERHAM, PHILIP S.	Butler, Pa.	82
JOHNSTON, ROBERT S.	Washington, D. C.	67	WILLIAMSON, LEE H.	Charlottesville, Va.	88
KAMPF, MORRIS	New York City	68	WOOD, GUY S.	New York City	82
LA DUE, WENDELL R.	Akron, Ohio	68	WOOD, VAUGHN	Los Angeles, Cal.	89
LINDSEY, RAY V.	Poteau, Okla.	68	WRIGHT, KENNETH C.	Brigham City, Utah	83
LUCKENBACH, JOHN L.	Woodville, Ohio	69	WURTS, CHARLES S., JR.	Philadelphia, Pa.	83
MCCASLIN, WALTER R.	Kansas City, Mo.	69			

Qualified by scientific studies
 means of practical experience
 to co-operation with engineers

Contributor to the fund
 funds of the Society

Graduation from a school of engineering or recognized reputation is required in
 3 years' active practice
 Membership ceases at age of 25 unless renewed at higher grade

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The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The numbers to the left of each record indicate the serial number of the applicant for the current year, and the district in which he resides.

The note in heavy type represents, in each case, the estimate of the Applicant of the time he has spent in Active Practice, Sub-Professional work, Professional work, Responsible Charge, and in Designing. These figures do not include the allowance of two years for graduation, nor one-third of a year for each academic year successfully completed in an engineering college without graduation.

FOR ADMISSION

ADSIT, CHARLES GEORGE—Elec. and Gas Bldg., Atlanta, Ga.—(Age 49. Born Ironton, Ohio.)—1892 to 1893 (1 year) with John R. Allen, Mech. Engr.: 1893 to 1894 (1 year) 177 took course in mathematics, Univ. of Chicago; also with John R. Allen on engineering: 1895 to 1896 (1 year) in private practice, engineering and contracting, Chicago: 1897 (10) to 1898 (1 year) with mining party in Alaska: 1899 to 1900 with Rockwell & Snyder, Contr. Engrs., Chicago, in charge of installing municipal engineering work, principally Waupun, Wis.: 1901 to 1902 with Gen. Elec. Co., Schenectady, N. Y.: 1902 to 1903 in charge of design and construction of hydro-electric development for Gold Pan Eng. & Mine Supply Co., as Asst. to Geo. H. Evans, Gen. Mgr. of Company and Hydr. and Cons. Engr. of Risdon Iron Works, San Francisco, Asst. on all hydraulic engineering and design: 1904 Chf. Engr. in charge of hydro-electric development and power-transmission system of Kimberly Montana Coal Min. Co., Jardine, Mont., designed and constructed this work, changing drive of mining and reduction works from steam to electric operation and designed and constructed the hydro-electric plant operating under 830 ft. head: 1905 to 1910 Cons. Elec. and Mech. Engr., Black Mtn. Min. Co., Chicago, Ill., and Magdalena, Sonora, Mexico, designed and constructed steam turbine generating station transmission system from railroad to mine about 40 miles away, and applied electric drive to all their mining and reduction apparatus: 1906 to 1910 also Cons. Engr., Warren Co. and Warren-Bisbee Ry., Bisbee, Ariz., designed and constructed interurban electric railway system in Bisbee mining district, mountainous country: 1911 on research work, Detroit, Mich.: 1911 to 1913 Engr., Northern Contr. Co., in charge of 100 000-h. p. hydro-electric development at Tallulah Falls, Ga. for Georgia Ry. and Power Co.: 1914 to 1918 Chf. Engr. in charge of development work, and 1919 to date Vice-Pres. and Executive Engr. in charge of all engineering matters, Ga. Ry. & Power Co. (Active practice 27 years: Res. Ch. 23: Design 23). Refers to J. B. Girard, B. M. Hall, W. S. Lee, H. McDonald, C. T. Main, D. W. Mead, P. H. Norcross, C. A. Smith, W. C. Spiker.

ALTSCHULER, SAUL—126 Milford Ave., Newark, N. J.—(Age 29. Born Tcherikov, Russia.) (B. S. in Civ. Eng., Univ. of Cal., 1920.)—May to Sept. 1920 and July to Oct. 178 1921 Draftsman, and Jan. to March 1921 Surveyor, Spring Valley Water Co., San Francisco, Cal.: March to June 1921 Draftsman and Surveyor for City of Tracy, Cal.: May (4) 1922 to April 1923 Constr. Engr., Palestine Salt Co., Ltd., in Athlit Palestine, building salt plant, constructing reservoirs and building houses: May to Nov. 1923 Drainage Engr., Jewish Colonization Association, Palestine, draining swamps. (Active practice 2.7 years: Prof. work 2.7: Res. Ch. 1.9: Design 1.9). Refers to C. Derleth, Jr., G. A. M. Elliott, B. A. Etcheverry, I. E. Flaa, I. Gutmann, G. W. Pracy.

BEATTY, ROBERT—State Office Bldg., Trenton, N. J.—(Age 22. Born Philadelphia, Pa.) (B. S. in C. E., Univ. of Pa., 1923.)—June to Sept. 1922 Structural Detailer, S. G. 179 Matthews & Co., on steel for buildings: Oct. 1923 to date Jun. Engr. with Joint Comm. for Elimination of Toll Bridges over Delaware River, general civil engineering work. (4) (Active practice 0.3 year: Sub-Prof. work 0.3). Refers to H. C. Berry, L. Focht, E. T. Grandlénard, E. L. Ingram, H. G. Leng, A. G. Nicolaysen, W. S. Pardoe.

BLANCHARD, ARTHUR DOUGLAS—155 Spruce St., Bloomfield, N. J.—(Age 43. Born Kentville, N. S., Canada.)—1904 to 1916 with Canadian Pacific Ry. as follows: 1904 to 180 1905 (1 year) Chainman and Rodman; 1905 to 1906 (1 year) Instrumentman and Draftsman; 1906 to 1908 (1½ years) Res. Engr. in charge of double track work with (11) bridges over Ottawa River, Ste. Anne de Bellevue to Vaudreuil, Quebec; 1908 (6 months) Engr. in charge of track surveys, soundings, etc., double track work, Smith Falls Sec.; 1908 to 1911 Res. Engr. in charge construction, Smith-Falls Sec. (1½ years) and Georgian Bay Seaboard Ry. (2 years); 1912 to 1914 Asst. Engr. in charge of location, in Ontario and in and around Toronto (over 9 months) and on grade revision and new surveys, Lake Superior Div. (1½ years); Asst. Engr. checking up classification and other work on Cambleford-Lake Ontario & Western Ry. (about 5 months); Asst. Engr. in charge of location, Interprovincial & James Bay Ry. (over 7 months); 1915 to 1916 (1 year) Engr. in charge of part of construction on Lake Erie & Northern Ry.: 1916 (nearly 4 months) in charge of inspection of munitions for Canadian Inspection and Testing Laboratories, Head office, Montreal, Que.: 1916 to 1919 (nearly 3½ years) Asst. Gen. Mgr., International Arms & Fuse Co., Bloomfield, N. J., in charge of production and loading on time fuses and other types: 1920 to 1923 (4 years) Plant Engr. in charge of maintenance and construction, maintenance and operation of power plants, Crocker-Wheeler Co., Ampere, N. J. (Active practice 19.3 years: Sub-Prof. work 6: Prof. work 13.8: Res. Ch. 13.8: Design 1). Refers to B. C. Donham, J. M. R. Fairbairn, G. W. Kittredge, C. N. Monsarrat, J. H. Phillips.

BRADSHAW, GEORGE WATSON—1130 Kentucky, Lawrence, Kans.—(Age 24. Born Holsington, Kans.) (B. S., Univ. of Kans., 1921.)—Sept. 1921 to Jan. 1922 Transitman 181 with J. E. McCorkle, Leavenworth, Kans., on highway construction: April to Aug. 1922 Asst. Engr. with R. E. Tilden, Cons. Engr., Winnemucca (Nev.) Office: Sept. 1922 to (14) June 1923 Instructor in Civ. Eng., and Sept. 1923 to date Asst. Prof. of Civ. Eng., Kansas Univ. (Active practice 1.8 years: Sub-Prof. 0.7: Prof. work 1.1). Refers to E. Boyce, A. H. Jewell, W. C. McNown, H. A. Rice, C. C. Williams.

BRUHN, ELMER FRANKLIN—Box 301, Golden, Colo.—(Age 24. Born Tuscola, Ill.) (B. S. in C. E., Univ. of Ill., 1923.)—1917 to 1918 (1¼ years) Asst. Mgr., Fred A. Smith 182 Lumber Co., bookkeeping, estimating lumber bills for houses, barns, etc.: 1922 (3 months) Instrumentman for F. J. Schwartz, Gen. Contr., on building construction: 1923 (3 months) (11) Civ. Engr. for English Bros., Contrs., laying out footings, tunnels, etc., giving elevations for steel and masonry, in charge of grading of football field of new University of Illinois Stadium: 1923 to date (5 months) Instructor in Civ. Eng., Colorado School of Mines. (Active practice 0.7 year: Res. Ch. 0.7). Refers to I. O. Baker, H. Cross, M. L. Enger, M. S. Ketchum, C. C. Wiley, C. C. Williams.

CAMERON, WILLIAM PAUL—701 Witherspoon Bldg., Philadelphia, Pa.—(Age 34. Born Philadelphia, Pa.)—May 1907 to Nov. 1908 with Lewis F. Shoemaker & Co., Philadel- 183 phia, Pa., about 3 months as Tracer, several months detailing beam work, then on roof trusses and all classes of structural detailing: Nov. 1908 to May 1909 detailing and (4) checking all classes of steel structures, Milliken Bros., New York City: May to Aug. 1909 detailing truss work mostly, also all classes of steelwork, American Bridge Co., Pencoys, Pa.: Aug. 1909 to Sept. 1913 with Robt. B. Lederle, Philadelphia, estimating and detailing all classes of structural steel and builders' iron work, also some designing: Sept. 1913 to Feb. 1918 with Belmont Iron Works, Philadelphia, as Asst. Chf. Estimator designing factory buildings, including foundations, brickwork, steel sash, etc.; New Jersey Salesman, Estimator and in charge of buildings erected: Feb. to May 1918 Purchasing Asst., steel for 8 000-ton ships, Emergency Fleet Corporation, U. S. Shipping Board: May to Dec. 1918 Yeoman, 1st class, U. S. Navy, in charge of moving various departments in Washington, D. C., to new buildings, laying out floor space and general advice regarding arrangement of departments in Navy Bldg.: Dec. 1918 to date in private practice as W. P. Cameron Eng. Co., Philadelphia, designed and built factories, warehouses, theatre, church, apartment house, store buildings and all classes of building; at present Gen. Contr. for bank building, Lancaster Ave. Title & Trust Co., boiler house for Kimble Glass Co., Vineland, N. J.; has designed and built nine factory buildings for latter Company; 3 years on development of eastern plant, Illinois Glass Co., Bridgeton, N. J.; also designing and furnishing structural steel for entire plant of Tavern Rock Sand Co., Bridgeton. (Active practice 16.7 years: Sub-Prof. work 6.5: Prof. work 9.2: Res. Ch. 7.1: Design 6.1). Refers to J. Cantley, C. D. Conklin, Jr., B. T. Mial, J. G. Shryock, L. S. Stiles.

CAMPBELL, CHARLES INGALLS—P. O. Box 851, Casper, Wyo.—(Age 35. Born Hastings, Nebr.)—July 1911 to Jan. 1912 Asst. to Constr. Supt. and in charge of office, double-184 tracking Union Pacific R. R., Julesburg, Colo., to Pine Bluffs, Wyo.; Jan. 1912 to Oct. 1913 Asst. Supt., double-tracking D. & R. G. R. R., Castel Gate to Kyune, Utah, (11) also Soldier Summit, Utah; Oct. 1913 to Jan. 1914 Asst. Cost Engr., Phoenix Constr. Co.; Salt Lake City, Utah, building hydro-electric plant for Utah Power & Light Co. (\$14 000 000); Jan. 1914 to May 1917 Asst. Supt., various railroad work, Chicago, Burlington & Quincy R. R., Guernsey to Wendover Cut-Off; Union Pacific double-tracking, Castle Rock to Echo, Utah; May 1917 to June 1919 with U. S. Army, at 1st Officers Training Camp, Ft. Snelling, Minn.; commissioned 2d Lieut., Q. M. Constr. at Camp Dodge, Iowa, in full charge construction 88th Div. Rifle Range; then with 313th Supply Train, after Sept. 1918 overseas with 88th Div. Staff; Sept. 1919 to Jan. 1920 Asst. Supt. railroad construction and state highway work, Estes Park Road, Big Thompson Canyon, Colorado; C., B. & Q. R. R. Co., Mitchell-Beet Spur, Mitchell, Nebr.; Oregon Short Line, mine spur, Soda Springs, Idaho; Jan. 1920 to Jan. 1924 member of firm, Sprague & Nisely Const. Co., also Vice-Pres. of Company, has had full charge of all work, consisting of dredging for Standard Oil Co. of Indiana at Casper, railroad construction for C., B. & Q. R. R., also putting in water lines, sewers, paving and sidewalks on 40-acre subdivision for Standard Oil Co. at Casper. (Active practice 12.8 years: Res. Ch. 10.7). Refers to C. H. Bowman, F. T. Darrow, J. C. Lindsay, N. P. Nelson, A. W. Newton.

CLEVELAND, ERNEST ALBERT—Parliament Bldg., Victoria, B. C., Canada—(Age 49. Born Alma, N. B., Canada.)—1890 to 1894 (4 years) article pupil with Williams 185 Bros. & Dawson, Engrs. and Surveyors, Vancouver, B. C., Canada, on various surveys: 1894 and 1895 Asst. on surveys in Alaska under International Boundary Comm.; 1896 (12) on mine surveys: 1897 to 1898 (2 years) conducting triangulation for Provincial Govt. in region Crow's Nest Pass Branch, Canadian Pacific Ry.; 1899 to 1902 (3 years) on studies and in private practice in Vancouver and on water power surveys for B. C. Exploring Syndicate: 1902 to 1905 (3 years) Engr. and Asst. Mgr., Iron Mask Mine: May 1905 to Jan. 1906 on engineering studies in Europe: 1906 to 1919 in private practice at Vancouver (1909-1918 member of firm, Cleveland & Cameron), on surveys, location, design and construction of roads, dykes, dams, flumes, pipe-lines, tramways, railways, water-works, sewers and numerous water-power investigations throughout British Columbia; had charge of location of Howe Sound & Northern Ry. (132 miles preliminary survey, 60 miles location, 10 miles construction), and of reconnaissance for British Columbia Central Ry. (150 miles); directed location and construction of short lines of railway; water-works installation for municipalities of Richmond (75 miles of pipe), Burnaby (60 miles pipe, 3 covered concrete reservoirs, 3 elevated steel tanks), Point Grey (35 miles pipe, covered concrete reservoir), also several miles of sewers; design and construction of reinforced concrete dam, hydro-electric plant and 6-mile transmission line and electric railway for Surf Inlet Power Co., Ltd., and other similar work: Feb. 1919 to date Cons. Engr. to Dept. of Lands, British Columbia, and Comptroller of water rights; Chairman, Board of Investigation under Water Act; work includes administration of water and water-power privileges in the Province for water-works, irrigation, power, etc.; complete reorganization of nearly all irrigation enterprises and general control of expenditures on irrigation works of about \$5 000 000; examination and approval of plans for hydro-electric power and other water-power developments, redesign of layout of Univ. of British Columbia lands at Point Grey (3 000 acres) and designs for water-supply and sewers for University and for all utilities for additional 300 acres. (Active practice 33.6 years: Res. Ch. 20: Design 20). Refers to J. B. Challies, F. C. Gamble, J. R. Grant, J. H. Kennedy, R. W. MacIntyre, A. K. Robertson.

COOPER, JOHN EDWARD—350 Ocean Ave., Brooklyn, N. Y.—(Age 55. Born New York City.)—1888 to 1889 (1½ years) Timekeeper to Headquarters Clerk, Ft. Work & 186 Denver Constr. Co., Ft. Worth, Tex., and Trinidad, Colo.; 1889 to 1890 (1½ years) Accountant and Paymaster, Lone Star Iron Co. of Jefferson, Tex., and Chicago, Ill.: (1) 1890 to 1891 (1½ years) Junior and Senior Accountant, Francis P. Holbrook & Co., Chicago, accounts of traction companies and of the municipality: 1892 to 1893 (1½ years) Asst. to Treas., later traveling Auditor, correspondence and accounting, machinery, Whitman & Barnes Mfg. Co., Chicago and Kansas City: 1893 to 1894 (1½ years) Accountant, Chf. Clerk and Paymaster, W. R. Stubbs Constr. Co. of Chicago and Kansas City, excavation, Chicago Drainage Canal: 1894 (6 months)

Expert Accountant, Atchison, Topeka & Santa Fe R. R.: 1895 to 1902 (7½ years) Cashier, Asst. Auditor, Auditor, Eastern Auditor, Financial Agt., Armour & Co. and Armour Packing Co. of Chicago and Kansas City, supervision of branch house accounts, later of purchase of materials and supplies and building construction, etc.: 1903 to 1913 (9½ years) in private practice as Public Accountant (1903-1904) and Certified Public Accountant in New York City with branch office in Bridgeport, Conn. (1905 to 1913): Aug. 1913 to May 1915 Chf., Bureau of Public Works Div., New York State Dept. of Efficiency and Economy, Albany, supervision of examination of state departments and institutions; in charge of field forces of engineers, inspectors and accountants; preparation of state budgets and revision of sinking funds: June 1915 to Dec. 1916 in private practice as Certified Public Accountant, New York City: Jan. 1917 to Jan. 1918 Asst. Chf. Accountant, Div. of Rapid Transit Operation, New York State Public Service Comm., Dist. No. 1, contract revision and accounting control of subway construction and operation: Feb. to July 1918 Asst. Director, Bureau of Audits, Allen Property Custodian, Washington, D. C.: Aug. to Oct. 1918 Capt., Corps of Engrs., U. S. Army, 116th Engrs., regimental duty, also detached duty as Depot Engr.: Nov. 1918 to Jan. 1919 Capt., C. O. E., U. S. Army, Gen. Staff, G. P. A. contracts, Accounting Div., standardization of accounts of A. E. F. and Allied Govts.: Jan. to March 1919 Capt., and April to Aug. 1919 Major, C. O. E., Engr. Disbursing Officer, Base Sec. 3, A. E. F., also Chf., Finance Div., office of Chf. Engr., London, England, supervision of records and finances concerned with adjustment of government contracts in Great Britain and France: Oct. 1919 to April 1921 private practice as Certified Public Accountant, especially on accounting for mine and mill operations, export financing and reorganization: May 1921 to date Chf., Bureau of Accounting and Valuations, Transit Comm. of New York State, supervision various sub-bureaus and divisions, field and office records of physical property inventories, engineering investigations of capitalization, operation and maintenance of street railways and power facilities and accounting and statistics of rapid transit construction and operating costs. (Active practice 33.7 years: Sub-Prof. work 7.7: Prof. work 26: Res. Ch. 16.4). Refers to H. J. Alexander, F. L. Cranford, G. L. Lucas, J. H. Madden, W. J. Shea, F. Wilcock.

CRAVENS, ROLLAND POSTON—Box 106, Wichita, Kans.—(Age 23. Born Salina, Kans.) (B. S. in Civ. Eng., Kans. State Univ., 1922.)—June 1922 to date Res. Engr. for 187 F. E. Devlin on municipal work, sewer, drainage and paving. (Active practice 1.6 years: Res. Ch. 1.2). Refers to V. R. Andrus, A. H. Jewell, J. O. Jones, H. A. Rice, (14) C. C. Williams.

DALTON, HARRY FRANKLIN—Care, American Car & Foundry Co., 165 Broadway, New York City—(Age 52. Born Salem, Mass.)—Sept. 1907 to July 1908 Constr. Q. M., 188 U. S. Army, in direct charge of construction of target range, roads and walks, government buildings, at Ft. Wm. McKinley, Philippine Islands (4 months), and of reconstruction of entire post, at Camp Wallace, San Fernando de la Union, Philippine Islands (6 months): July to Aug. 1911 and Jan. 1912 to Aug. 1913 Constr. Q. M., U. S. Army, in direct charge of construction of government buildings at Ft. Douglas, Salt Lake City, Utah (1 month), and Ft. Screven, Ga. (11 months), and of preparation of camp site and construction of camp at Gettysburg, Pa., for reunion of Union and Confederate veterans, installation of water system, electric light and roads: May 1917 to Aug. 1919 with U. S. Army, 3 months as Q. M., in direct charge of construction of buildings at Madison Barracks, N. Y., for Reserve Officers Training Camp; then Chf. Q. M., 76th Div., in supervisory charge of entire construction of buildings, roads, etc., at Camp Devens, Mass.: and later Col., Infantry, with 4th Div., in France and Germany: Aug. 1919 to July 1920 Member of War Dept. Claims Board (Ordnance): July 1920 to date with American Car & Foundry Co. as member of Executive Staff. (Active practice 9.2 years: Prof. work 3.7: Res. Ch. 3.7: Design 0.4). Refers to C. Nixon, F. A. Pope, C. O. Sherrill, F. H. Snow, H. Tilghman.

DAVE, JOSEPH—Care, S. Sternberg & Co., Asheville, N. C.—(Age 26. Born Kovno, Poland.) (C. E. Univ. of Cin., 1923.)—At present Engr. and Salesman, S. Sternberg & Co., 189 structural steel. Refers to G. M. Braune, E. D. Gilman, R. L. Langenheim, E. K. Ruth, (10) H. Schneider.

DAVIS, CLARE ADOLPH—Room 1105, Baltimore & Ohio Bldg., Baltimore, Md.—(Age 45. Born Vermontville, Mich.)—Aug. 1905 to Jan. 1909 Res. Engr., Erie R. R.; on location and construction of Genesee River cut-off; in charge of construction, including

- designing of numerous masonry structures: April 1909 to Aug. 1910 Draftsman and
 (5) Div. Engr., Chicago, Burlington & Quincy R. R., in charge of construction of branch
 line (about 15 miles long): Feb. 1912 to June 1915 Res. Engr., Erie R. R., in charge
 of location and construction of about 25 miles of second track and grade reduction work
 in Indiana: June 1915 to Aug. 1916 Senior Civ. Engr., Interstate Commerce Comm.,
 acting as Asst. Field Engr. in charge of valuation work: Oct. 1916 to date various
 positions in Valuation Dept., Baltimore & Ohio R. R. Co., since May 1917 Cost Engr. in
 charge of developing all unit costs and original cost of construction in connection with
 valuation work. (Active practice 16.9 years: Prof. work 16.9: Res. Ch. 15.7: Design
 0.4). Refers to J. H. Bowditch, F. T. Darrow, H. E. Hale, J. B. Jenkins, R. Mather,
 J. P. Nelson.

- DAVIS, DELL BROWNELL—536 National Road, Richmond, Ind.—(Age 36. Born Rich-
 mond, Ind.)—1906 Timekeeper, Foreman and Draftsman, Richmond Home Telephone
 191 Co., on underground construction: 1907 to 1912 (5 years) Inspector and later Asst.
 Engr. in City Eng. Dept., Richmond, Ind.: 1913 to 1917 (4 years) Engr. and Supt. for
 (9) F. E. Slick, Gen. Contr., Richmond, had charge of estimating and superintended build-
 ing of gravel, brick and concrete pavements and tile, monolithic and concrete pipe
 sewers: 1917 (3 months) with A. Bentley & Sons Co., Toledo, Contrs. for building Camp
 Sherman, Chillicothe, Ohio; had charge of constructing lateral sanitary sewers, water
 distribution and surface drainage: Oct. to Dec. 1917 Prin. Asst. Field Engr. on con-
 struction of Camp Johnson, Jacksonville, Fla. (for Bentley Co.): Jan. 1918 to date
 (6 years) City Engr., Richmond, Ind. (Active practice 16.5 years: Sub-Prof. work 3:
 Prof. work 13.5: Res. Ch. 13.5). Refers to C. O. Brown, F. D. Corliss, S. W. Hayes,
 A. H. Hinkle, G. E. Martin, P. K. Sheldler, L. V. Sheridan.

- DEWITT, DOUGLAS HOLDEN—Lotus Ave., Oradell, N. J.—(Age 24. Born Oradell, N. J.).
 (B. Sc., Rutgers Coll. Eng. School, 1922.)—June to Aug. 1922 Inspector, Bergen County
 192 Mosquito Extermination Comm., inspection and surveying: Aug. 1922 to Nov. 1923
 Asst. Engr., Broadhurst Co., surveying and supervising on construction work: Nov. 1923
 (1) to Jan. 1924 Inspector for Lozier, Zabriskie & Van Keuren, inspecting and supervising
 on construction of sewerage system. (Active practice 1.6 years: Sub-Prof. work 1.6:
 Res. Ch. 0.5). Refers to A. P. Ackerman, C. Potts, E. H. Rockwell, S. A. Stephenson, Jr.,
 S. N. Williams.

- DRYFOOSE, EARL DANIEL—320 Hagler Bldg., Springfield, Ill.—(Age 26. Born Toledo,
 Ohio.) (B. S. C. E., Purdue Univ., 1919.)—May to Sept. 1917 Rodman, Walbridge
 193 Aldinger Co. of Detroit, Mich., on construction of Selfridge Aviation Field: Oct.-Dec.
 1918 Instrumentman, Toledo (Ohio) Ry. & Light Co., on location of towers for high-
 (8) tension system, also some drafting work in Production Dept.: June 1919 to date with
 Illinois Highway Div., Springfield, Ill., until Sept. 1920 as Jun. Highway Engr. on
 design of steel and concrete bridges under supervision; then Asst. Highway Engr. on
 design, estimates and specifications for all types of bridge work, and since June 1923
 Asst. Bridge Engr., Aid in supervision of all state bridge work and all county work
 sent to the division. (Active practice 4.6 years: Prof. work 4.6: Res. Ch. 3.4: Design 4.6).
 Refers to R. R. Benedict, G. F. Burch, H. F. Clemmer, C. Older, F. T. Sheets, F. Tarrant.

- FARWELL, HERBERT FREEMAN—Room 7, Court House, Worcester, Mass.—(Age 24.
 Born Roslindale, Mass.) (B. S., Tufts Coll. Eng. School, 1923.)—Feb. to Oct. 1923
 194 Structural Draftsman, Boston & Maine R. R., field and office work: Oct. 1923 to date
 Draftsman, County Eng. Office, field and office work. (Active practice 1 year: Sub-Prof.
 (2) work 1). Refers to H. P. Burden, B. W. Guppy, L. O. Marden, E. H. Rockwell,
 E. H. Wright.

- FEARING, ALBERT JUSTIN—10 Faneuil Pl., New Rochelle, N. Y.—(Age 47. Born
 Weymouth, Mass.) (B. S., Mass. Inst. Tech., 1898.)—June 1898 to May 1901 Chf. of
 195 Party, and Draftsman detailing bridgework, Boston & Albany R. R.: May 1901 to April
 1905 Draftsman with Purdy & Henderson, Boston, Mass., designing and detailing struc-
 (1) tural steel for buildings: April to Dec. 1905 Draftsman with Frank B. Gilbreth, Gen.
 Contr., New York City, designing reinforced concrete: Dec. 1905 to Nov. 1911 Asst.
 Engr. and Asst. Engr. of Design, Hudson & Manhattan R. R., designing reinforced
 concrete and in charge of all design for the subway, tunnels and stations: Nov. 1911
 to March 1913 Engr. with Max E. Smith, New York, designing and detailing moving
 platform for rapid transit passenger service: March to May 1913 Chf. Engr., Board
 of Public Works, New Rochelle, N. Y., in charge of highway work, sewers, etc.: May

1913 to date Asst. Engr. and Div. Engr., New York Municipal Ry. Corporation and New York Rapid Transit Corporation, designing and in charge of construction of elevated railroad structures, stations and shops. (Active practice 25.6 years: Sub-Prof. work 8.1: Prof. work 17.5: Res. Ch. 9.1: Design 8.4). Refers to J. V. Davies, B. H. M. Hewett, H. J. Kolb, W. S. Menden, F. P. Witmer.

FISHER, ROBERT FORREST—Urbana, Ill.—(Age 38. Born Fisher, Ill.)—1906–1908 student, Coll. of Eng., Univ. of Illinois: June to Sept. 1907 Levelman, Colorado Power 196 Co.: 1909 to 1910 Levelman and Draftsman for L. N. Sizer, Fisher, Ill., drainage work (1½ years); Asst. Supt. for Roberts & Schaeffer, Chicago, Ill., on coaling station in (8) West Virginia (6 months) 1911 to 1912 (1½ years) Levelman and Transittman, The Arnold Co., Chicago, on irrigation work in Denver for Denver Res. Irrigation Co.: 1912 to 1917 (5 years) Asst. City Engr., Champaign, Ill.: 1917 to 1919 (3 years) County Surveyor and in private practice of engineering: 1919 to date County Supt. of Highways, Champaign County, Ill.; at present in charge of \$2 500 000 bond issue for concrete paved roads (under construction); (estimated additional county fund passing through office \$500 000 annually, including township, county and village construction and maintenance work). (Active practice 15.1 years: Sub-Prof. work 1.4: Prof. work 13.7: Res. Ch. 12.5: Design 14.3). Refers to G. F. Burch, M. L. Enger, F. C. Lohmann, C. Older, F. T. Sheets, J. E. Smith, L. S. Trainor.

GELBMAN, WILLIAM CLYDE—345 East 56th St., New York City—(Age 22. Born New York City.)—Student (in 4th year), Cooper Union Inst. of Technology: Feb. to Aug. 1922 197 Rodman, Lawyers Title & Trust Co., New York City: Aug. 1922 to Aug. 1923 Rodman, Transittman, Dept. of Highways, Queens, on surveys, maps, computations, etc.: Aug. to (1) Nov. 1923 Transittman, Northfield Constr. Co., New York City, on building construction, building of foundations for gas works, computing construction of power plants: Nov. 1923 to Jan. 1924 Transittman, Dept. of Plant and Structures, on road construction work, computing, on reconstruction of Riverside Drive Viaduct, steel and concrete replacements. (Active practice 1.9 years: Sub-Prof. work 1.9). Refers to E. W. Borough, H. R. Codwise, J. A. Knighton, G. Morrison, J. C. Riedel, J. P. J. Williams.

GILLIN, ELBERT TAYLOR—Lahaina, Maui, Hawaii.—(Age 31. Born Belmar, N. J.)—1923 received degree of Civ. Engr., International Correspondence School: June 1913 to 198 July 1915 Draftsman and Instrumentman on sewers and paving, City of Oroville, Cal.: Aug. 1915 to Jan. 1917 Draftsman and Designer, Maui Loan Fund Comm., Wailuku, (1) Maui, Hawaii, on water-works, highway construction, concrete arch bridge, slab and girder bridges: Jan. 1917 to Jan. 1919 Asst. Engr., Maui Agricultural Co., Paia, Maui, Hawaii, on extensive irrigation works, narrow gauge railroads: Jan. 1919 to Aug. 1923 Civ. Engr., Pioneer Mill Co. (sugar plantation), locating, excavating and concrete lining irrigation ditches, locating and constructing 4½ miles of railroad, maintenance of ditches and 28 miles of railroad, miscellaneous structures, water supply and sanitation; Designer and responsible for construction of machine shop with saw tooth roof, also garage (both reinforced concrete) for the Company. (Active practice 10 years: Sub-Prof. work 3.8: Prof. work 6.2: Res. Ch. 4.6: Design 1.6). Refers to J. B. Cox, J. H. Foss. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

GILROY, URBAN BURNS—1317 Humboldt Bank Bldg., San Francisco, Cal.—(Age 27. Born Marysville, Cal.) (A. B. in Civ. Eng., Stanford Univ., 1922.)—March 1915 to Jan. 199 1916 Rodman, Chalmers, Instrumentman and Draftsman with E. D. Woodruff, Civ. Engr., Marysville, Cal.: July to Aug. 1918 Draftsman, California Highway Comm., Div. (13) No. 1, Willits, Cal.: Sept. 1918 to Jan. 1919 Private and 2d Lieut., F. A., Field Artillery Central Officers' Training School, Camp Zachary Taylor, Ky., considerable work in mapping and topography: June to Sept. 1920 Asst. Engr., Southern Pacific Co., Coast Div., San Francisco, Cal., office work in valuation: April to May 1922 Draftsman with J. C. L. Fish: June to Oct. 1922 Asst. Engr. with Alexander & Baldwin, Ltd., Paia, Maui, Hawaii, field and office work in hydrographic investigations pertaining to seepage losses in streams, etc., drafting and computations for design of a penstock: Nov. 1922 to March 1923 Instrumentman, Pipe Line Dept., Standard Oil Co., Hynes, Cal., and some office work: June to Nov. 1923 Asst. to F. H. Fowler, Cons. Engr., San Francisco, field and office work on valuation of petroleum properties, hydrographic investigations, water supply and water-power developments: Dec. 1923 to date Asst. to Paul Bailey, Cons. Engr., Spring Valley Water Co., San Francisco, office work in study of underground waters in the Niles Cone. (Active practice 2.4 years: Res. Ch. 0.7). Refers to P. Bailey, S. Baker, J. C. L. Fish, J. H. Foss, F. H. Fowler, C. D. Marx.

GISIGER, PAUL EDWARD—403 Steward Ave., Jackson, Mich.—(Age 28. Born Schoenenwerd Switzerland.) (C. E., Zurich, Switzerland, Pol. Inst., 1919.)—Oct. 1919 to Aug. 200 1920 Jun. Asst. Engr., Swiss Federal R. R., Div. for Electrification, on design of hydro-electric structures: Oct.—Nov. 1920 Draftsman with Hazen, Whipple & Fuller, Cons. (7) Engrs., New York: Dec. 1920—July 1921 Draftsman, Southern Power Co., Charlotte, N. C., on design of hydro-electric structures: Aug.—Oct. 1921 Draftsman, North Carolina State Highway Comm., Raleigh, N. C., design of concrete bridges: Nov. 1921—April 1923 Designer, Southern Power Co., design of hydro-electric power stations: May 1923 to date Designer, Fargo Eng. Co., Jackson, Mich., design of hydro-electric structures. (Active practice 4 years: Sub-Prof. work 0.5: Prof. work 3.5: Res. Ch. 1.7). Refers to J. S. Bowman, R. G. England, W. G. Fargo, H. S. Hunt, F. B. Kiel, E. Maerker.

GOULD, HARLEY JOSEPH—Madeira, Ohio—(Age 40. Born New Sharon, Iowa.) (B. C. E., 1906, and C. E., 1916, Iowa State Coll.)—June 1906 to June 1907 Draftsman and 201 Checker, American Bridge Co., Ambridge, Pa.: June 1907 to date with Ferro Concrete Constr. Co., Cincinnati, Ohio, as follows: June 1907 to Feb. 1908 and May 1908 to (9) March 1909 Draftsman on design of concrete buildings; Feb. to May 1908 Timekeeper on construction; March to July 1909 design on Gloyd Bldg., Kansas City, Mo., supervision of construction of foundations for same; July 1909 to March 1910 Field Engr. on Eastman Kodak Bldg. No. 36, over 3 months in full charge; March 1910 to Aug. 1911 in charge of Cost Dept., occasional design and estimating; Aug. 1911 to Dec. 1912 scientific management on making and erecting form work, in charge of installation under supervision of Sanford E. Thompson and Wm. O. Lichtner; Dec. 1912 to Oct. 1913 Asst. Supt. (4 months) and Supt. (6 months) of construction, Morgan and Wright Bldgs., Detroit, Mich.; Oct. 1913 to April 1915 in charge of Cost Dept.; April 1915 to Jan. 1916 Supt. of Constr. of Colored Y. M. C. A.; since Jan. 1916 in charge of Cost Dept., supervision of all outside clerical employees of Company: 1920 and 1921 (nearly 4 months) also on design of concrete buildings for Tietig & Lee, Archts., Cincinnati, Ohio. (Active practice 17.7 years: Sub-Prof. work 2: Prof. work 15.7: Res. Ch. 14.1: Design 1.5). Refers to W. P. Anderson, H. S. Ayres, C. M. Canady, E. C. Harding, H. D. Loring, A. Marston, C. M. Miller.

HARRUB, CALVIN NELSON—506 Fourth & First Bank Bldg., Nashville, Tenn.—(Age 43. Born Plympton, Mass.) (B. S., Mass. Inst. Tech., 1909.)—March 1902 to Feb. 1904 202 Instrumentman and Draftsman with E. B. & C. L. Hayward, Civ. Engrs., Brockton, Mass., on surveys for subdivisions, street construction, street railway maintenance and (10) construction, etc.: Feb. to Aug. 1904 Instrumentman and Draftsman, Old Colony St. Ry. Co.: summer 1905 Instrumentman with E. A. Douglas, Landscape Engr., at South Easton, Mass.: summer 1907 Instrumentman and Draftsman, Westinghouse, Church, Kerr & Co., on construction of generator station, substation, high-tension feed wire system and electric conduit system at Brockton: summer 1908 Res. Engr. with C. A. Platt, New York, in charge of construction of roads, drainage system, concrete residence, and water supply system for large private residence in Lake Forest, Ill.: May 1909 to Aug. 1911 Supt. of Filtration, City of Springfield, Mass., in charge of operation of Ludlow Filters and West Parish Filtration Plant, also of sanitation of developed part of Little River Watershed: Sept. 1911 to Aug. 1912 Field Asst., New Jersey State Board of Health, in charge of field investigations of sewage-disposal works, and making chemical and bacteriological analyses of the sewages: Sept. 1912 to Jan. 1916 San. Engr., New York Continental Jewell Filtration Co. of New York, in charge of construction of rapid sand filtration plants, making official tests of plants, and carrying out experiments and research in water purification: Feb. 1916 to July 1921 San. Engr., U. S. Public Health Service, in charge of sanitary surveys in Connecticut and Rhode Island and studies of tidal currents in New Haven Harbor and Narragansett Bay in connection with studies of pollution of coastal waters (1916–1917), and of malaria control work in extra-cantonment area around Camp Joseph E. Johnston and shipyards of Jacksonville and South Jacksonville, Fla. (1918); detailed to State Board of Health of Kentucky as Acting State San. Engr. (May 1919) and to Tennessee also (Aug. 1919); after Jan. 1921 Dist. Engr. (Public Health Service) in charge of Dist. No. 4 (Kentucky, Tennessee, Mississippi, Alabama, Georgia and Florida), in charge of investigation and certification of water supplies of interstate carriers; also State San. Engr. for Tennessee State Board of Health: July 1921 to June 1923 Director, Div. of San. Eng., State Dept. of Health of Tennessee, in charge of sanitary engineering, including supervision of water supplies, sewerage systems, malaria control, checking plans, and design of such systems: July 1923 to date associated with B. H. Klyce in consulting engineering.

especially on design and supervision of construction of, also consulting work on, water supply and sewerage systems. (Active practice 17.3 years: Sub-Prof. work 2.5; Prof. work 14.8; Res. Ch. 11.2; Design 3.2). Refers to C. B. Breed, F. C. Dugan, A. J. Dyer, C. A. Emerson, Jr., B. H. Klyce, H. E. Miller.

HASIE, COLEMAN LLOYD—Box 168, Memphis, Tex.—(Age 28. Born Nebraska City, Nebr.)—June 1914 to June 1916 student, Agricultural and Mechanical Coll. of Texas: 203 June to Sept. 1916 Asst. County Engr., Karnes County, Tex.: Sept. 1916 to Oct. 1917 Asst. County Engr., Potter and Oldham Counties, Tex.: Oct. 1917 to Oct. 1918 County (15) Engr., plans and construction, Wheeler County, Tex., State and Federal Aid: Oct. 1918 to Jan. 1920 Dist. Engr. with Hess & Skinner, Engrs., Amarillo, Tex., in active charge of state highway work (150 miles) (total over \$600 000) in Texas; made plans and wrote specifications: Jan. 1920 to Jan. 1921 County Engr., Fisher County, Tex., on State and Federal Aid highway work, on plans and specifications (total \$200 000): Jan. 1921 to June 1923 County Engr., Lamb County, Tex., on State Aid highway work (expenditure \$150 000), plans and construction; also County Engr., Bailey and Hockley Counties, on highway work (expenditure \$47 000): June 1923 to date County Engr., Hall & Hockley Counties, Tex., on plans for State and Federal Aid concrete road (approx. 27 miles) (expenditure \$1 000 000), etc., steel bridges (\$50 000), and State Aid roads in Donley County, Tex. (Active practice 7.7 years: Prof. work 7.7; Res. Ch. 7.7). Refers to J. D. Fauntleroy, G. A. McClellan, G. E. Morrison, G. G. Wickline, R. J. Windrow.

HAYDEN, JACKSON BIRD—Nutley, N. J.—(Age 25. Born Newark, N. J.)—One term studied Civ. Eng. at Newark Tech. School: May to Dec. 1917 with Company B, 1st 204 U. S. Engrs., construction of temporary bridges, cantonments, etc.: Aug. to Sept. 1921 Foreman with W. J. D. Lynch, Inc., Nutley, N. J., in charge of road repair work and (1) small concrete construction: Oct. 1921 to June 1922 Asst. Supt. and Supt. with M. C. McElligott, Contr., Nutley, in charge of sewer construction in Nutley and Passaic, N. J.: July 1922 to May 1923 Asst. Supt. and Supt. with Public Service Production Co., Newark, N. J., in charge of sewer construction in Jersey City: June to July 1923 Asst. Supt. with W. J. D. Lynch, Inc., Nutley, in charge of construction of street work in Passaic, including grading, construction of walls, curbs, gutters, etc.: Aug. 1923 to date Contr., Pres., J. B. Hayden, Inc., in charge of all field work. (Active practice 2.4 years). Refers to W. L. Hanavan, A. S. Mahony, M. R. Pugh, G. R. B. Symonds, C. R. Wise.

HERSHBERG, BEN BURTON—2256 Andrews Ave., New York City—(Age 23. Born Albany, N. Y.) (C. E., Rens. Pol. Inst., 1923.)—June to Oct. 1922 Jun. Asst. Engr., 205 New York State Dept. of Highways, field work, inspection of construction of concrete highway, laying out work, line and grade, reports, records; office work on mapping and (1) computations: June to Oct. 1923 Field Engr., John F. O'Rourke Constr. Eng. Co., New York City, on 16-story office building, laid out work to line and grade, inspected, made reports and kept records: Oct. 1923 to date Surveyman, U. S. Engrs., New York City, Estimator on dredging quantities, Inspector of tide gauges, and various office and field duties. (Active practice 0.7 year: Res. Ch. 0.7). Refers to E. R. Cary, L. W. Clark, T. R. Lawson, W. P. Mason, P. C. Ricketts.

HIBBS, ALBERT SAMUEL—102 E. Mill St., Akron, Ohio—(Age 36. Born Akron, Ohio.) (C. E., Ohio Northern Univ., 1916.)—June 1916 to June 1922 with Operating Div., 206 Akron City Water Works as follows: June 1916 to Jan. 1917 Draftsman, designing distributing mains, records of main installations; Jan. 1917 to March 1918 Asst. Supt., (9) maintenance, distribution system; March 1918 to Jan. 1921 Asst. Engr., in charge of construction work, distributing mains; Jan. 1921 to June 1922 Supt. of Distribution, charge operation, maintenance and construction, distribution system: June 1922 to date Asst. Gen. Supt., full charge, entire Operating Div., Bureau of Water Supply, Akron. (Active practice 7.6 years: Sub-Prof. work 0.6; Prof. work 7; Res. Ch. 7; Design 0.6). Refers to F. A. Barbour, G. G. Dixon, H. S. Morse, H. L. Newhall, W. F. Peters, G. F. Pfeiffer, M. P. Tucker.

HICKS, FRED LLOYD—Box 218, Willow Springs, Mo.—(Age 23. Born Robertstown, Ga.)—April 1921 to Sept. 1923 with State Road Dept. of Kentucky, Frankfort, Ky., as Rod- 207 man, Leveler and Draftsman: Sept. 1923 to date Draftsman, Missouri State Road Dept., Willow Springs, Mo., on road plans. (Active practice 2.6 years: Sub-Prof. work 2.6). (14) Refers to O. B. Bestor, W. S. Downs, J. T. Madison, M. E. S. Posey, C. Swecker.

HIGGINSON, CLARENCE HUGH—15 Park Row, New York City—(Age 32. Born Brooklyn, N. Y.)—Graduated from Peekskill Military Acad. (1911); 1914 took special course in structural design at Teachers Coll., Columbia Univ.; 1911 to date with William Higginson, New York City, 3 years as Draftsman on industrial buildings, warehouses and terminals; 3 years Engr. and Outside Inspector, laying out and design of industrial buildings, warehouses, terminals and docks; past 7 years Gen. Outside Supt. in responsible charge of construction of industrial buildings, terminals, warehouses and docks, including responsible charge of buildings of Bush Terminal Co. (\$5 000 000), Arbuckle Bros. (\$1 000 000), Robert Gair Co. (\$4 000 000), Brooklyn Daily Eagle (\$400 000), and C. Kenyon Co. (\$2 000 000), Brooklyn, N. Y.; Loose Wiles Biscuit Co. (\$2 000 000), Degnon Terminal (5 buildings) (\$1 000 000), Wheeling Corrugating Co. (\$300 000), and James Butler, Inc. (\$2500 000), Long Island City, N. Y.; Revere Sugar Refinery, Boston, Mass. (\$3 000 000), and Atlantic Sugar Refinery, St. John, N. B. (\$1 000 000). (Active practice 13 years: Sub-Prof. work 1.5: Prof. work 11.5: Res. Ch. 7: Design 3). Refers to J. K. Campbell, E. J. Moore, G. H. Preston, T. A. Smith, A. W. Stephens, H. C. Turner, A. Weymouth.

HOLLAND, THOMAS LEO—1804 Tchoupitoulas St., New Orleans, La.—(Age 39. Born Detroit, Mich.)—March to Nov. 1903 Rodman, Northern Pacific R. R. Co.; Nov. 1903 to Jan. 1904 Rodman, Timekeeper, Material Man, Rock Island R. R., construction work, building bridges, etc.; July 1904 to Nov. 1906 Instrumentman, Concrete Steel & Tile Constr. Co., Detroit, Mich.; Field Engr., in charge of reinforcing steel on reinforced concrete storage building for Booth Cold Storage Co., Detroit; Field Engr. and Asst. Supt., on reinforced concrete factory building for Packard Motor Co., Detroit; Nov. 1906 to Sept. 1907 Supt. of Constr., Vinton & Co., Detroit, mill construction factory building for Buick Motor Co., Flint, Mich.; Sept. 1907 to Jan. 1908 Supt. of Constr., Max Bartholomew, Detroit, on 8-story reinforced concrete store building; Jan. 1908 to March 1910 Asst. Supt. of Constr., Pinkerton Const. Co., Reading R. R. elevation from Diamond St. to Wayne Junction, Philadelphia, Pa., work included mass concrete, steel, fill and heavy stone masonry; April 1910 to July 1914 with W. E. Wood Constr. Co. (now W. E. Wood Co.), Detroit, first as Asst. Supt. of Constr. on three reinforced concrete factory buildings for Overland Motor Co., Toledo, Ohio; then Supt. of Constr. on 5 factory buildings and a boiler house (all reinforced concrete), reinforced concrete and steel gas producing plant, reinforced concrete, stone and brick gas-engine power house, including installation of mechanical and electrical equipment, and a heat-treat building, including equipment, and pattern shop (both steel and brick) for Ford Motor Co., Detroit; 3 factory buildings and a steel storage building (reinforced concrete, and a brass foundry (steel and stucco) for Dodge Bros., Detroit; July 1914 to July 1916 Engr., Smith, Hinchman & Grylles, Detroit, in charge of construction of a Theatre building (steel, terra-cotta, stone and brick), a warehouse (reinforced concrete, brick, on pile foundations), two office buildings (8 and 12 stories, reinforced concrete, steel, stone and brick) and a factory building (reinforced concrete and brick); also acted as expert witness; March 1916 to March 1923 with The Foundation Co., New York City, as Supt. of Constr. on installation of mechanical and electrical equipment, dam and opening bituminous coal mine for 20 000-kw. steam power plant for Pen-Elec. Power Co., Rockwood, Pa.; opening bituminous coal mine, including hoist and air shafts, coal tippie, ice breakers, small steam power plant, and installation of equipment and operation for 30 days, Vesta Coal Co., Brownsville, Pa.; three pumping stations (open caisson construction, reinforced concrete), including installation of equipment and rehabilitation of 5 000-kw. steam power plant for Penn R. R., Wellville and Rushrun, Ohio, and Midland, Pa.; 10 000-kw. reinforced concrete and brick hydro-electric power plant for Marquette (Mich.) Power & Light Co.; Supt. of Constr. and Design of small steam power plant, including installation of boilers and equipment for American Cotton Oil Co., Guttenburg, N. J.; Works Mgr. in charge of design and construction of three cotton spinning mills (mill construction) and a reinforced concrete warehouse for Utica (N. Y.) Spinning Co., and of construction on machine shops and foundry buildings (brick and steel) for International Paper Co., Turners Falls, Mass., and of 80 000-kw. steam power plant for Pen-Central Power Co., Saxton, Pa.; Mgr. in charge of demolishing a 15-story hotel building (steel, reinforced concrete and brick) and construction of a 25-story office and bank building, including foundations, mechanical and electrical equipment, First National Bank Bldg., Detroit; March 1923 to date Mgr., Phoenix Utility Co., in charge of rehabilitation of 50 000-kw. steam power plant including installation of mechanical and electrical equipment, construction of additional 100 000-kw. steam power plant and of new sub-stations throughout the city, extension and rehabilitation of present substations,

extension of underground transmission and distribution system, increasing capacity of gas-producing plant and extension of street railway system, all for New Orleans (La.) Public Service, Inc. (Active practice 19.2 years: Res. Ch. 17: Design 3.2). Refers to F. W. Adgate, H. Crosby, H. J. Deutschbein, G. R. Johnson, J. H. O'Brien, H. J. Patterson, L. W. Robert, Jr.

HOLMES, WILLIAM HENRY—418 Hackberry, Modesto, Cal.—(Age 29. Born Morgan Hill, Cal.) (A. B., Dept. of Civ. Eng., Leland Stanford, Jr., Univ., 1921.)—Nov. 1917 to Jan. 1919 with Co. I, 23d Engrs., U. S. Army: Jan. to April 1921 (part of time) on drafting and design of, and April to Dec. 1921 drafting and Transittman on, Stanford Stadium: Dec. 1921 to March 1922 drafting and design of Univ. of California Stadium as proposed by Palmer & McBryde, Contr. on Stanford Stadium: April 1922 to April 1923 with Turlock Irrigation Dist., California, 2 months as Transittman on surveys at Don Pedro Dam, 8 months in charge of design of steel towers and location of transmission line from Don Pedro to Turlock; and 2 months on irrigation structures: April 1923 to date Asst. Engr., Modesto Irrigation Dist., California. (Active practice 4.2 years: Res. Ch. 1.6: Design 1.3). Refers to S. Baker, E. E. Carpenter, N. M. Cecil, P. F. Jones, C. D. Marx, J. F. Partridge, C. B. Wing.

HOPSON, WILLIAM HALL—590 Sterling Pl., Brooklyn, N. Y.—(Age 30. Born Stratford, Conn.) (Ph. B., Sheffield Sci. School, 1914.)—July to Dec. 1914 Inspector on new construction, concrete, macadam and gravel roads, Connecticut State Highway Dept., New Haven, Conn.: Dec. 1914 to April 1915 Rodman, New York, New Haven & Hartford R. R.: April 1915 to July 1916 Job Engr. and Cost Clerk, James Stewart & Co., Inc., New York City: July 1916 to Jan. 1917 Job Engr. and Asst. Supt. of Constr., Raymond Concrete Pile Co., New York City, on concrete pile and heavy concrete foundation work: Jan. 1917 to Jan. 1920 Job Engr., Asst. Supt. of Constr., Estimator and Cost Keeper, John W. Ferguson Co., Paterson, N. J., general building construction, both mill and reinforced concrete factories: Jan. 1920 to Jan. 1921 Constr. Engr. on reinforced concrete buildings, White Constr. Co., New York City: Jan. 1921 to Jan. 1922 Estimator and Supervisor, Cement Finish Co., New York City, on concrete arch and cement finish on high-class office buildings: Jan. 1922 to date Secy., Chf. Engr. and Gen. Supt. of Constr., estimating, general building construction, I. H. Meyer, Inc., Brooklyn, N. Y. (Active practice 9.5 years: Sub-Prof. work 3.5: Prof. work 6: Res. Ch. 6). Refers to S. E. Barney, R. L. Bertin, J. W. Ferguson, G. P. Morrill, J. E. Torrey, J. C. Tracy.

HORNER, OLIVER HOWARD—1918 North 17th St., Kansas City, Kans.—(Age 35. Born Clements, Kans.) (B. S., Univ. of Kans., 1914.)—July 1914 to Nov. 1919 (except June 1917 to Jan. 1918 and April 1918 to Jan. 1919) Asst. Engr. with Black & Veatch, Cons. Engrs., alternate design and supervision of construction, sewers and sewage disposal, water supply, power and light plants and on appraisals, largely municipal projects: June to Aug. 1917 Prin. Asst. Cons. Engr. to Constr. Q. M., Camp Pike, Little Rock, Ark., surveys and design and direction of camp utilities, namely sewers and sewage disposal, water supply and distribution and power and light: Aug. 1917 to Jan. 1918 Cons. Engr. to Constr. Q. M., 3 months at Camp Doniphan, Ft. Sill, Okla., surveys, design and direction of all camp utilities, namely railroads and warehouses, roads, power and light, water supply and distribution, camp layout and building locations, and 3 months at Camp Pike, direction of entire engineering organization on camp utilities: April 1918 to Jan. 1919 Machinist, U. S. N. R. F., Bureau of Navigation, Washington, D. C., at Pelham Bay, Stevens Inst. of Technology, Hoboken, and aboard ship; in reserve U. S. N. to April 1922: Nov. 1919 to Jan. 1923 Vice-Pres. and later Pres., Sherman Eng. Co., Kansas City, Mo., design and general supervision of construction of industrial plants, including Red Star Mills, Wichita, Kans. (\$1 000 000); Gooch Milling Co., Lincoln, Nebr. (\$300 000), Midland Flower Mills Co., Kansas City, Mo. (\$150 000): Jan. 1921 to date also member of firm, Horner & Wyatt, Engrs., Kansas City, Mo., design and supervision industrial engineering projects, Fairfax Industrial Project, Kansas City, Kans. (\$1 000 000), Blair Milling Co., Atchison, Kans. (\$200 000): from June 1921 to date member, City Planning Comm., Kansas City, Kans.; member, Zoning Committee; Chairman, Traffic Way Committee; from Oct. 1923 to date Asst. Engr., Union Pacific R. R., consulting on railroad interests in Fairfax Industrial Project, Kansas City, Kans. (Active practice 9.6 years: Res. Ch. 8.6: Design 8.6). Refers to H. Bartholomew, E. B. Black, J. O'Neill, L. V. Sheridan, L. R. Tillotson, N. T. Veatch, Jr., A. R. Young.

HORSTMYER, HARRY ELMER—466 Lexington Ave., Room 904, New York City—(Age 39. Born in Albany County, N. Y.)—1906 to 1908 (6 months) Chainman, Rodman and

213 Inspector on city sewer and paving construction, with L. B. Sebring, Schenectady, N. Y.: 1906 to 1910 (3½ years) student, Rensselaer Polytechnic Inst.: 1910 to 1911

(1) (6 months) Instrumentman, 1911 to 1912 (1 year) Draftsman, and 1912 to 1915 (3 years) Asst. Engr. in charge of field surveys and working up studies for elimination of grade crossings, New York Central R. R.: 1915 to 1917 (2 years) Asst. Engr., N. Y. C. R. R., in charge of location field work on Hudson River Connecting River R. R.: June to Aug. 1917 Location Engr., Shelby Northern R. R., Shelby, N. C.: Aug. 1917–July 1918 designing masonry for Pennsylvania R. R.: Aug. 1918–July 1919 1st Lieut., Engrs., U. S. Army, in France with 22d Engrs.: Aug. 1919 to date Asst. Engr., N. Y. C. R. R., 4 years in office of Asst. to Pres., working in connection with U. S. R. R. Administration, settling addition and betterment work for Federal control on Cleveland, Cincinnati, Chicago & St. Louis R. R., Lake Erie & Western R. R., and Indiana Harbor R. R., and past 6 months working up valuation for taxation purposes. (Active practice 13.8 years: Sub-Prof. work 2: Prof. work 11.8: Res. Ch. 8.8: Design 3). Refers to H. R. Bouton, S. E. Coombs, C. J. Parkery, J. W. Pfau, B. S. Voorhees.

HULL, WILLIAM HENRY—Farmington Ave., New London, Conn.—(Age 35. Born Jersey City, N. J.)—May 1908 to Sept. 1917 with T. A. Scott Co., Inc., New London, Conn.,

214 from May 1908 to March 1910 Timekeeper, Cost Clerk and drafting, March 1910 to May 1913 Asst. Supt. and estimating, and May 1913 to Oct. 1915 Supt. of Constr.

(2) and estimating, on marine construction, covering wharves, bulkheads, breakwaters, foundations, pipe lines, etc.; from Oct. 1915 to Sept. 1917 designing and estimating, including preliminary surveys on marine construction: Sept. 1917 to April 1918 with U. S. Army, Eng. Reserve Corps, as 2d Lieut., attended Engr. Officers' Training Camp at American Univ., Washington, D. C., then with 106th Engr. Regt., Camp Wheeler, Macon, Ga.: April 1918 to July 1919 commissioned Asst. Naval Constr. (rank of Ensign), for special duty with Salvage Sec., Bureau C. and R., Washington, D. C.: commissioned Lieut. (j. g.), Asst. Naval Constr. Jan. 1919; after April 1919 in charge of section: July 1919 to Feb. 1923 with T. A. Scott, Inc., until April 1921 designing, estimating, and in charge of construction, covering wharves, bulkheads, bridges, subaqueous foundations, pipe lines, dredging, etc.; then Vice-Pres., in charge of engineering and construction covering marine construction and subaqueous installations: Feb. 1923 to date Res. Engr., Merritt Chapman & Scott Corporation, New London, in charge of engineering and contracting in New England Dist. (Active practice 15.7 years: Sub-Prof. work 4: Prof. work 11.7: Res. Ch. 5.5: Design 2.8). Refers to J. E. Barlow, G. L. Bilderbeck, E. W. Crawley, H. L. Dunn, P. J. Gray, G. D. Holmes, E. E. Lochridge, S. B. Palmer.

HUNT, EDWARD MARSHALL—22 Beckett St., Portland, Me.—(Age 53. Born Portland, Me.) (S. B., Mass. Inst. Tech., 1894.)—1887 to 1889 (2 years) in office of Edward

215 Clarence Jordan, C. E., Portland, Me.: 1889 to 1890 (1 year) Chainman and Rodman on railroad location under Frederic Danforth, and railroad construction under Edward

(2) Graves in Maine, and Rodman on municipal and general work in Rockland, Me., under Oscar H. Tripp: 1890–1894 (summer vacations) in office of City Engr., Portland, Me.: 1894 to 1895 (1 year) Asst. Instructor in Civ. Eng., Massachusetts Inst. of Technology: 1895 to 1906 (11 years) Secy. and Asst. Engr., Dept. of Public Works, Portland, Me., design, construction and maintenance of streets, bridges, drains and sewers: 1906 to 1916 (10 years) Surveyor, Jun. Engr. and Asst. Engr., U. S. Engr. Office, Portland, design, construction and maintenance of river and harbor improvements: 1916 to date (nearly 7½ years) Commr. of Public Works and City Engr. of Portland, in charge of design, construction and maintenance of streets, sidewalks, bridges, drains and sewers. (Active practice 32.6 years: Res. Ch. 9.6: Design 12.3). Refers to E. C. Jordan, W. H. Norris, C. D. Pollock, F. A. Pope, G. F. Swain, S. H. Thorndike, O. H. Tripp.

JOHNSTON, ROBERT SMITH—3604 McKinley St., N. W., Washington, D. C.—(Age 39. Born New York City.) (B. S. in C. E., School of Civ. Eng., Tufts Coll., 1908.)—Aug.

216 1908 to May 1909 Structural Draftsman with Walter Kilde, Engr., construction, New York City, design and inspection of erection of industrial buildings: May 1909 to May

(5) 1910 Structural Detailer with Post & McCord, New York City, office building construction: May 1910 to March 1911 Asst. in Engr. of Structures' Office, Electric Zone, New York Central & Hudson River R. R., inspection of concrete construction, estimating progress reports: March to May 1911 Designer, New York Public Service Comm., 1st

Dist., New York City, on steel and reinforced concrete subway sections, Lexington Ave. Subway: May 1911 to Feb. 1912 Structural Designer, S. M. Green Co., Inc., Springfield, Mass., on layout and design of industrial buildings: Feb. 1912 to Sept. 1913 Structural Engr., Keystone Fireproofing Co., New York City, in charge of design of framework of office and industrial buildings and responsible for securing approval of City Commission, etc., for special fireproof system: Sept. 1913 to Sept. 1915 instructing, Dept. of Civ. Eng., Univ. of Pennsylvania, in mechanics of materials, stresses in framed structures, bridge design, materials and cement testing; summer vacation Struc. Engr. for several architects in Philadelphia: Sept. 1915 to July 1918 instructing, Dept. of Civ. Eng., Lafayette Coll., in charge of courses in mechanics of materials and materials testing, assisted in mechanics, framed structures and surveying: summer vacation Bridge Engr. for County Engr., Lehigh County, Pa., on bridge repairs: July 1918 to date Engr. Physicist, U. S. Bureau of Standards, Washington, D. C., supervising routine and research testing of engineering materials, had supervision of special series of tests of structural frame work for Navy dirigible *Shenandoah*, and recent investigation for Delaware River Bridge Joint Comm. (Active practice 15.3 years: Sub-Prof. work 3.5: Prof. work 11.8: Res. Ch. 9.8: Design 3.7). Refers to H. C. Berry, C. E. Chase, R. J. Fogg, A. H. Fuller, W. T. Lyle, J. M. Porter, E. H. Rockwell, F. E. Schmitt, W. A. Slater, S. Truscott, C. L. Warwick.

KAMPE, MORRIS—292 East 7th St., New York, N. Y.—(Age 28. Born Lemberg, Poland.)—May 1913 to April 1916 with Herbert C. Keith, Cons. Bridge Engr., New York City, as 217 Draftsman and Computer of strains and stresses on miscellaneous bridges on line of New York, New Haven & Hartford R. R.: April 1916 to Jan. 1920 Designer and (1) Checker of miscellaneous designs on varied building work, Westinghouse, Church, Kerr & Co., Engrs. and Contrs.: Jan. 1920 to date with James Stewart & Co., Contrs., New York City, as Designing Engr. on varied structures ranging from forms and construction plant layout to design of \$2 000 000 boiler plant. (Active practice 10.7 years: Sub-Prof. work 5.6: Prof. work 5.1: Res. Ch. 3.6: Design 1.5). Refers to P. Clow, A. W. A. Eden, H. C. Keith, J. L. Parker, G. Plinner.

LA DUE, WENDELL RICHARD—376 University Pl., Akron, Ohio—(Age 29. Born Mt. Pleasant, Ohio.) (B. S. in C. E., Univ. of Southern Cal., 1918.)—1914 to 1916 218 (vacations) Surveyor's Rodman, Cement Inspector, Student Instructor in surveying, mapping, etc.: June to Sept. 1917 Draftsman and Detailer, Bureau of Water Works (9) Improvement, Akron, Ohio, plans, details and estimates for five 2 000 000-gal. per day rapid sand filter units; feeder and distribution system: Jan. 1918 to Jan. 1919 with Bureau of Constr. and Repair, U. S. Navy, San Francisco, Cal., design, tests, inclining experiments and speed and endurance trials of submarines and destroyers: Jan. 1919 to March 1922 with Bureau of Water Works Improvement, Akron, as follows: Jan. to June 1919 Jun. Engr. on hydrological and geological investigations of source of water supply, meteorological studies and reports, loss-of-head experiments: July 1919 to June 1920 Asst. Engr., design, specifications and estimates for ten 2 000 000-gal. per day rapid sand filter units, three elevated water tanks, 4 miles 48-in. steel force main and 2 miles 48-in. cast-iron force main and small sewage-disposal plant (total \$2 000 000); July 1920 to June 1921 Asst. Designing Engr., design, specifications and estimates for 6 miles of 48-in. steel force main, pumping station discharge piping, pumping station and boiler room extensions and booster stations (total \$2 000 000); July 1921 to March 1922 Asst. Designing Engr., special investigations of future water supplies, involving detailed preliminary estimates of costs, plans, yield determination for 50-B. G. storage reservoir (\$5 000 000 project): April 1922 to date Designing Engr., Bureau of Water Supply, Akron, in charge of distribution and feeder system design and studies; design of 2-M. G. coagulation basins, mixing chambers, alum plant, 20-M. G. distributing reservoir; general design and maintenance (\$500 000 yearly program). (Active practice 6.4 years: Sub-Prof. work 0.2: Prof. work 6.2: Res. Ch. 3: Design 5). Refers to F. A. Barbour, G. G. Dixon, E. A. Kemmler, H. S. Morse, H. L. Newhall, J. E. Root, M. P. Tucker.

LINDSEY, RAY VERNETT—Poteau, Okla.—(Age 39. Born Greenfield, Iowa.) (B. S. in Civ. Eng., Okla. Agri. and Mech. Coll., 1909.)—June to Dec. 1909 Laborer, Blacksmith, 219 Riveter, steel bridge work, Missouri Valley Bridge & Iron Co.: Dec. 1909 to Jan. 1912 with Moore & McClure Eng. Co., Oklahoma City, until March 1910 as Rodman and (15) Instrumentman; about 7 months as Res. Engr., Lawton & Ft. Still Interurban R. R.; and after Nov. 1910 Instrumentman, railroad location and construction and municipal

work: Feb. to Oct. 1912 Res. Engr., Clinton & Oklahoma Western R. R., Clinton, Okla.: Nov. 1912 to April 1913 Instrumentman, railroad location, Little Rock-Hot Springs, Ark.: April to Sept. 1913 Instrumentman, Great Northern R. R.: Oct. 1913 to May 1918 Farmer and Breeder and Raiser of live stock, Kingfisher, Okla.: June 1918 to Dec. 1922 County Engr. and County Surveyor, Kingfisher County, Okla., City Engr. of Kingfisher, 1 year acted as Project Engr., Federal Aid Project No. 25, prepared plans, in charge of construction of concrete road; prepared plans and supervised construction of about \$600 000 worth of highway, bridge, sewer and drainage work: Jan. 1923 to date Project Engr., Oklahoma State Highway Dept., in field charge of 40 miles of Federal Aid hard surface road construction. (Active practice 10 years: Sub-Prof. work 3.2: Prof. work 6.8: Res. Ch. 5.5). Refers to W. C. Burnham, M. L. Cunningham, P. H. Everhard, B. M. Hart, D. H. Jones.

LUCKENBACH, JOHN LEWIS—Box 66, Woodville, Ohio—(Age 45. Born Philadelphia, Pa.) —1905 to 1907 (2 years) Asst. Chf. Engr., W. K. Mitchell & Co., Piping Contrs., Philadelphia, Pa., power plant piping and design: 1907 to 1908 (1 year) Draftsman, with Dodge & Day, Engrs., Philadelphia, mechanical and structural, industrial plants: 1908 (9) (6 months) Draftsman, structural steel, Wayne Iron Works, Philadelphia: 1908 to 1909 (1 year) Designing Engr., Chas. Warner Co., Lime Mfrs., Wilmington, Del., lime and cement plants, mechanical and structural: 1909 to 1912 (3 years) Chf. Draftsman, Scofield Eng. Co., Engrs., Philadelphia, mechanical and structural, power plants: 1912 (6 months) Designing Engr. with A. C. Wood, Cons. Engr., Philadelphia, structural and mechanical, power plants: 1912 to 1914 (2½ years) Designing Engr. with Ballinger & Perrot, Archts. and Engrs., Philadelphia, mechanical and structural, office and loft buildings, industrial plants: 1915 to 1916 (1 year) Designing Engr. with Day & Zimmerman, Engrs., Philadelphia, structural and mechanical, industrial plants: 1916 to 1918 (1½ years) in private practice as Cons. Mech. Engr., Philadelphia, power plants, structural: 1918 to 1919 (6 months) Designing Engr., New York Shipbuilding Corporation, Camden, N. J., foundations, plate and angle shop machinery, miscellaneous construction: 1919 (3 months) Asst. Plant Engr., Pusey & Jones Co., Shipbuilders, Gloucester, N. J., maintenance: 1919 (3 months) Chf. Engr., Baker-Dunbar-Allen Co., Engrs., Philadelphia, power plant equipment, sales and construction: 1919 to 1920 (1 year) Constr. Engr., Chas. Warner Co., Lime Mfrs., Wilmington, Del., crusher installation, miscellaneous construction: 1920 to 1921 (9 months) Designing Engr., Wilson-Ruff Co., Engrs., Philadelphia, power plants, mechanical and structural: 1922 (3 months) Constr. Engr., Jessup & Moore Paper Co., Elkton, Md., building and miscellaneous construction: 1922 to 1923 (1 year) Structural Engr. with Carson & Carson, Engrs., Philadelphia, building construction: 1923 (nearly 9 months) Squad Leader, U. G. I. Contr. Co., Philadelphia, mechanical and structural: Dec. 1923 to date Constr. Engr., Ohio Hydrate & Supply Co., Woodville, Ohio, design and construction of large crusher installation, etc.: Registered Engr., State of Pennsylvania. (Active practice 18 years: Sub-Prof. work 3.6: Prof. work 14.4: Res. Ch. 6.5: Design 6.1). Refers to W. F. Carson, B. Irwin, A. R. Lindsey, E. G. Perrot, E. M. Scofield, E. E. Seyfert.

MCCASLIN, WALTER ROY—7516 Wabash Ave., Kansas City, Mo.—(Age 42. Born Hillsboro, Ill.)—Jan. 1903 to Jan. 1904 Masonry Inspector, Big Four Ry., Nokomis, Ill., in charge concrete work, double-track construction: Jan. 1904 to Jan. 1905 and Jan. to Oct. 1908 Contr. and Bldr., at Nokomis, residence and business building: July 1905 to (14) Feb. 1906 Instrumentman, Concrete Inspector, Illinois Central Ry., New Orleans, La., on building of Stuyvesant Docks: Feb. to Aug. 1906 Asst. Engr. and Res. Engr., Great Southern Lumber Co., Bogalusa, La., in charge of party doing topographical work for location of mill and townsite; and Res. Engr. on building of town and railroad yards: Aug. 1906 to Jan. 1908 with Missouri Pacific Ry., 9 months as Asst. Div. Engr. at Osawatimie, Kans., in charge of engineering on Central Kansas Div., and 8 months Roadmaster, Valley Div., at Lake Providence, La.: Nov. 1908 to April 1910 Asst. Engr., White and Cache River Levee Dist., Cotton Plant, Ark., in charge location and construction, 20-mile levee along White River: April to Oct. 1910 City Engr., Nokomis, in charge of extensive paving work, also engineering: Oct. 1910 to Feb. 1911 Asst. Engr., Frisco Ry., Joplin, Mo., general maintenance of way: Feb. to July 1911 Locating and Res. Engr., Decatur Southern Traction Co., in charge of locating and construction of electric railway: July to Nov. 1911 general engineering work around Nokomis: Nov. 1911 to July 1912 Concrete Inspector, Kansas City Terminal Ry., on walls and subways: July 1912 to Jan. 1913 Erection Supt., Ben Hur Erection Co., St. Louis, Mo.,

- in charge of steel erection: Jan. 1913 to Feb. 1914 Constr. Engr., Alton (Ill.) Steel Co., in charge of laying out and construction of \$1,000,000 rolling mill: Feb. to Aug. 1914 Engr., Kansas City Structural Steel Co., in charge of engineering work on building construction, some steel detailing: Aug. to Nov. 1914 Draftsman, Valuation Dept., Kansas City Southern Ry.: Nov. 1914 to April 1915 Asst. Engr. for C. E. McCrae, Cons. Engr., Kansas City, Mo., surveys, etc.: April to Aug. 1915 Constr. Engr., street paving, Auburn, Nebr.: Aug. 1915 to April 1916 Concrete Inspector, Kansas City Southern Ry., on concrete elevator work: April 1916 to June 1918 Draftsman, Bridge Dept., Kansas City Terminal Ry., detailing steel and designing concrete: June to Aug. 1918 Draftsman and designing for Harrington, Howard & Ash, Cons. Engrs., Kansas City, Mo.: Aug. 1918 to April 1920 Office Engr., Sewer Div., Kansas City, Mo., designing and checking sewers and buildings: May to July 1920 valuation work on bridges and buildings, Interstate Commerce Comm., Kansas City, Mo.: July 1920 to Jan. 1921 design and detail of steel structures for Havens Structural Steel Co.: Jan. 1921 to date Asst. Highway Engr., Jackson County, Mo., in charge of Kansas City office, overseeing all design and construction work on bridge and roads. (Active practice 20.8 years: Sub-Prof. work 3.3: Prof. work 17.5: Res. Ch. 7.1: Design 3.1). Refers to H. L. Havens, A. B. Hitchcock, P. J. Kealy, W. A. Keene, Jr., N. E. Waddell, E. C. L. Wagner, E. P. Weatherly.
- McINTYRE, JOHN—State Highway Dept., Topeka, Kans.—(Age 29. Born Nokomis, Ill.) (B. S. C. E., Kansas Univ., 1919.)—Aug. 1912 to Sept. 1913 and June 1915 to Sept. 222 1916 Chainman and (part of time) Rodman, Atchison, Topeka & Santa Fe Ry.: April 1917 to May 1919 with Co. A, 110th Engrs., Instrumentman on sewers and water- (14) works, Camp Funston, Kans., demolition, defense construction, cableway and narrow gauge construction, etc., in A. E. F.: May 1919 to Jan. 1920 Asst. Engr., Federal Aid roads, Shawnee County, Kans., in charge field and office work and construction: Jan. to Dec. 1920 with Hunt Eng. Co., Kansas City, Mo., highway bridge design, Supt. of Constr., filling stations and pumping plants: Jan. 1920 to March 1923 Asst. Engr., Federal Aid roads, Shawnee County, design, field and office work, 45 miles concrete roads, including bridges: April 1923 to date Asst. State Highway Engr., State Highway Comm., Topeka, in charge of all office work and all Federal Aid construction for State. (Active practice 8.2 years: Sub-Prof. work 2: Prof. work 6.2: Res. Ch. 4.7: Design 1.5). Refers to R. A. Finney, C. A. Forter, R. F. Gallup, L. A. Hunt, N. M. Liddell, L. Nofztger, R. H. Pennartz, L. R. Tillotson.
- McKENZIE, ALEXANDER MAXWELL—1404 Jefferson Ave., E., Detroit, Mich.—(Age 27. Born Wallingford, Conn.) (B. S. in C. E., Univ. of Mich., 1918.)—May 1919 to Sept. 223 1922 with Pittsburgh Des Moines Steel Co., as Transltman and Timekeeper on erection of steel towers for Lafayette Radio Station near Bordeaux, France (8 months); Drafts- (7) man in tank and tower drafting room at Pittsburgh (6 months); Asst. to Mgr. of Erection Dept. in Pittsburgh office (over 1 year); Asst. Supt. on erection of hangar shops, etc., of Naval Air Station at Pearl Harbor, Hawaii (value of project approx. \$700,000) (over 1 year): Oct. 1922 to Oct. 1923 Draftsman in Bridge Engr.'s office and Res. Engr. on bridge construction, Oregon State Highway Comm.: Oct. 1923 to date Engr., Detroit Aero Metals Co., in charge of plant design, also acting in advisory capacity on plant construction. (Active practice 4.7 years: Sub-Prof. work 2.3: Prof. work 2.4: Res. Ch. 1.9: Design 0.5). Refers to E. R. Akers, I. D. Goodwin, R. A. Klein, C. B. McCullough, G. S. Paxson, C. L. Todd.
- MAINE, HERBERT AUGUSTA—Waterloo, Iowa—(Age 43. Born Newton, Iowa.)—Completed 3 years in Civ. Eng., Iowa State Coll.: 1894 to 1895 ($\frac{3}{4}$ year) with Foster & Liebbie, 224 Archts., Des Moines, Iowa: 1900 to 1901 ($1\frac{3}{4}$ years) contracted sewers, curbing and paving, Des Moines: 1902 to 1903 Res. Engr. on reinforced concrete bridge and steel (7) bridge for City of Des Moines: 1910 to 1917 contracted erection of building for Marsh Place Co. (6 stories), First National Bank (7 stories) and one for James Black-Dry Goods Co. (8 stories) (all reinforced concrete), power house for W. C. F. & N. Ry., 10-story steel and concrete office building for Leavitt & Johnson National Bank, all in Waterloo, Iowa, hydro-electric power house and dam at Nashua, Iowa, and steam power plant for Citizens Gas & Elec. Co., Waterloo, reclaiming site and constructing 1500 ft. of river wall: 1918 to 1919 with U. S. Navy as Lieut. (j. g.), 3d Naval Dist., in charge of concrete barge and boat work: 1920 to 1922 contracted erection of \$1,000,000 high school, Waterloo: 1922 to 1923 contracted and erected dam for Citizens Gas & Elec. Co., Waterloo, and erected hydro-electric plant for Northeastern Iowa Power & Light Co.,

- Independence, Iowa; at present owner and Mgr., H. A. Maine Co., general contracting; during past 13 years has completed about \$12 000 000 worth of work, did all estimating and buying and had general supervision over all work. (Active practice 13.8 years: Res. Ch. 13). Refers to E. McCullough, J. B. Marsh, A. Marston, A. R. Swem, J. E. Van Liew.
- MANCHESTER, BURGESS**—2040 N. 61st St., Omaha, Nebr.—(Age 30. Born Petersburg, N. Y.) (C. E., Reis. Pol. Inst., 1915.)—March 1916 to April 1917 Asst. Engr. 225 Corps, Pennsylvania R. R., Indianapolis Terminal Div., in charge of field party on new yard construction: April to Aug. 1917 Asst. Engr., Chicago Junction Ry., in charge (14) of laying out and installing industrial sidings: Aug. to Oct. 1917 Asst. Engr., Central Mfg. Dist., Chicago, in charge of installation of paving and sewers: Oct. 1917 to Dec. 1919 with The Koppers Co. of Pittsburgh, Pa., until March 1919 as Field Engr. in charge of field work in connection with construction of benzol plant at Chicago, Ill.; for Peoples Gas Co. (7 months) and of by-product coke oven plant at Terre Haute for Indiana By-Product Coke Co. (11 months); after March 1919 Cost Engr. on cost work in connection with construction of complete by-product coke oven plant at Midland, Pa., for Pittsburgh Crucible Steel Co.: Feb. 1920 to date Asst. Engr., Metropolitan Utilities Dist., Omaha, Nebr., Asst. to Operating Engr. on analyzing operating costs and making reports for same for municipally-owned water, gas and ice plants of Omaha; also made studies of gas distribution system of Omaha as to flow conditions with recommendations as to future extensions for next fifteen years in low-pressure and high-pressure systems; made preliminary designs for coal-gas plant for Omaha (10 000 000 cu. ft. per day). (Active practice 7.8 years: Res. Ch. 2.8). Refers to E. R. Cary, H. E. Cotton, H. V. Knouse, F. P. Larmon, J. Latenser, Jr., T. R. Lawson, G. T. Prince.
- MOORE, WALTER ALBERT**—Box 1111, Welland, Ont., Canada.—(Age 41. Born Bayham, Ont., Canada.)—Completed Civ. Eng. course and Architectural course with International 226 Correspondence Schools: 1907 to 1912 (5 years) Carpenter, Foreman, Wesley Springer & Co.: 1912 to 1916 (4 years) Bldg. Supt., Canadian Methodist Mission, Szechewan, (6) West China: 1917 to 1918 (approx. 1 year) Plant Engr., Canadian Salt Co., Windsor and Sandwich, Ont.: 1918 to 1919 (1 year) with Canadian Army, 16th Field Co., Canadian Engrs., in Russia: 1920 (4 months) Draftsman, McKinnons Industrials: 1921 (4 months) Asst. to Engr., Karno-Smith Constr. Co., Trenton, N. J., on rubber plant, Welland, Ont.: 1923 Draftsman, Electro-Metallurgical Co. of Canada (6 months) and Canadian Mead-Morrison Co. (3 months), Welland: 1924 draftsman, plant extension, American Cyanamid Co., Niagara Falls, Ont., Canada. (Active practice 12.5 years: Res. Ch. 4: Design 5).—(Applies in accordance with Sec. 1, Art. I, of the By-Laws.)
- NARASIMHAM, RASIPUR DASA**—Care, R. V. Krishnan, Asst. Secy. to Govt. (Law), Ft. St. George, Madras, India.—(Age 28. Born Rasipur, India.) (M. E., Govt. Coll. of Eng., 227 Madras, 1918; B. E., Univ. of Madras.)—July 1918 to June 1919 Apprentice Engr., Govt. Public Works workshops, on supervision, execution, designing and estimating, and (1) took measurements of works in progress, such as hand-power cranes, irrigation sluices, regulators, roof trusses, compound girders, etc.; also testing and setting engines, etc.: July 1919 to June 1920 Asst. Engr. in responsible charge of a subdivision under Chingleput Dist. Board, on roads, causeways, bridges and model town planning schemes, etc., including design and directing of engineering work: July 1920 to Dec. 1923 Asst. Engr., Sivaganga in responsible charge of subdivision under Court of Wards, Sivaganga Estate, roads, buildings, palace works, temples, irrigation works, etc. (Active practice 5.5 years: Prof. work 5.5: Res. Ch. 5.5: Design 5.5). (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)
- NELSON, HARRY MERTON**—39 Seaman Ave., New York City.—(Age 39. Born Ryegate, Vt.) (C. E., Cornell Univ., 1908.)—April 1908 to Dec. 1910 Draftsman and Levelman, 228 New York State Eng. Dept., property surveys and layout and inspection of structures on construction of Barge Canal: Jan. 1911 to Dec. 1913 Instrumentman, Inspector and (1) Asst. Engr. with Hugh L. Cooper, on layout of structures, inspection of concrete and foundations, reports and estimates, supervision of construction: Jan. 1914 to June 1916 Chf. of Party and Asst. Engr., Palsades Interstate Park Comm., surveys and supervision of construction of highways, docks and playgrounds: July 1916 to Dec. 1917 Res. Engr. in charge of construction of \$2 000 000 sulphite mill, with H. S. Ferguson: Jan. 1918 to March 1919 Field Engr., American International Shipbuilding Corporation, in charge of field engineering and inspection during construction of Hog Island Shipbuild-

ing Plant: July 1919 to March 1920 Asst. Engr. with Hugh L. Cooper, in charge of surveys for power investigation of St. Lawrence River from Ogdensburg to Long Sault Rapids: April 1920 to date Asst. Engr., International Paper Co., designs and estimates for paper mill and hydroelectric plants. (Active practice 15.6 years: Sub-Prof work 2.8: Prof. work 12.8: Res. Ch. 10.8: Design 3.8). Refers to H. F. Anthony, H. L. Cooper, H. S. Ferguson, E. E. Halmos, E. Hutchins, C. A. Ingersoll, L. R. Talbot.

NICKEL, EDWARD AUGUST—1935 Berryman St., Berkeley, Cal.—(Age 26. Born Ft. Harrison, Mont.) (B. A., Univ. of Cal., Architecture, 1920.)—May to Oct. 1918 Draftsman, 229 Chainman, Spring Valley Water Co., San Francisco, Cal.: May to Sept. 1919 Ship Material Man, Union Constr. Shipbuilding Co., Oakland, Cal.: Dec. 1919 to Jan. 1920 (13) Shipwright, Moore Shipyard, Oakland, Cal.: May 1920 to date with Spring Valley Water Co., San Francisco, one year on general engineering work, map-making and some design; June 1921 to Jan. 1922 on Calaveras Dam reconstruction, including map-making, computation, Calaveras Spillway design, reinforced concrete; Jan. to July 1922 on Calaveras Dam Outlet Tower design (reinforced concrete); July to Nov. 1922 superintending construction, Calaveras Outlet Tower; Nov. 1922 to April 1923 on Sunol Aqueduct reconstruction, design (reinforced concrete); since April 1923 on design of Stanford Headquarters Reservoir (2 months), Niles Reservoir (4 months) and University Mound Reservoir (raising, 1 month), Pleasanton Dairy Unit (wood) (1 month) and steel water tank. (Active practice 4.4 years: Res. Ch. 2: Design 1.8). Refers to H. D. Dewell, A. J. Eddy, G. A. M. Elliott, T. W. Espy, I. E. Flaa, G. W. Pracy, J. J. H. Sharon.

NOBLE, HAROLD AKER—5609 Wayne Ave., Chicago, Ill.—(Age 26. Born Kallspeil, Mont.) (B. S. in C. E., Univ. of N. Dak., 1920.)—June to Sept. of years 1918 and 1919 Asst. 230 Hydrographer, Valler (Mont.) Land & Water Co., field and office hydrographic work for irrigation project: July to Oct. 1920 Draftsman, Fargo Eng. Co., Jackson, Mich., (8) tracing power plant details: Oct. 1920 to April 1923 with Valler Land & Water Co., until June 1921 as Asst. Operation Engr., Operating Dept., irrigation project; then Asst. Engr. in Eng. Dept. in charge of field party gathering data for adjudication of water rights, including determination of ditch capacities and irrigable areas, and interviewing witnesses; office work compiling data gathered in field and making necessary computations: May 1923 to date Draftsman for concrete and steel on \$2 225 000 gas plant, \$6 000 000 steam plant and smaller improvements, Byllesby Eng. & Man. Co., Chicago. (Active practice 3.4 years: Res. Ch. 0.9). Refers to C. E. Atwood, E. F. Chandler, C. S. Heidel, P. F. Lavalle, M. L. Monley, F. C. Shenehon.

OLDHAM, JENNINGS BRYAN—307 S. W. L. Bldg., Dallas, Tex.—(Age 27. Born Fulton, Ky.) (B. S. in C. E., Univ. of Tex., 1921.)—Aug. to Oct. 1916 and June 1917 to 231 June 1918 Draftsman, Chf. Engr.'s office, Texas & Pacific Ry.: June 1918 to Oct. 1919 and June to Oct. 1920 Structural Draftsman, Chf. Engr.'s office, T. & P. Ry., assisting (15) Bridge Engr. on plans, design and estimates on bridges and culverts, part of time also similar work on steel shop buildings: June to July 1921 Draftsman, Valuation Dept., T. & P. Ry.: July 1921 to date with Portland Cement Association, Dallas, Tex., until Jan. 1923 as Field Engr., inspection and promotional work on various concrete projects; advisory work with engineers and architects with regard to design and specifications for various concrete structures; since then Office Engr., advisory work with engineers, architects and owners (where no engineer is employed) on design and specifications for various classes of concrete work. (Active practice 4.9 years: Sub-Prof. work 3.3: Prof. work 1.6: Res. Ch. 1.6: Design 0.5). Refers to E. C. H. Bantel, C. A. Clark, R. L. Holmes, C. P. Howes, G. E. Rogers, W. G. Williams.

ORMSBEE, DAN WILT—333 Alcatraz Ave., Oakland, Cal.—(Age 40. Born Nord, Cal.)—Nov. 1902 to July 1903 Flagman, Rodman, Computer, Butte Co. Ry.: Chico, Cal.: July to 232 Dec. 1903 Leveler, Draftsman, Caldor Ry., Eldorado Co., Cal.: Dec. 1903 to July 1904 Topographer, Draftsman, Western Pacific Ry. Co.: July 1904 to April 1905 Draftsman, (13) Chico Elec. Ry. and city work: April to Sept. 1905 Draftsman and Asst. Engr., Nevada Consolidated Copper Co.: Sept. 1905 to Sept. 1906 Asst. Engr., Nevada Northern Ry. Co., in charge 60 miles construction and a location survey: Sept. to Dec. 1906 Judell & Ormsbee, general engineering practice, Ely, Nev.: Dec. 1906 to Feb. 1907 Asst. to County Surveyor, Butte Co., Cal.: Feb. to Dec. 1907 Asst. Engr., Ely Townsite Co., in charge surveys, construction, town layout for 25 000, including grades, water system power house: Dec. 1907 to March 1908 Asst. Engr., Oro Light & Power Co., charge of

survey on dam and reservoir sites, canal lines: March 1908 to Dec. 1910 Engr. and Supt., Water Co., Ely Securities Co., building construction, surveys, etc.: Aug. and Sept. 1909 Asst. Engr., C. D. Vail, Cons. Engr., made surveys for dam on Grand River, Colo., and in temporary charge construction Crystal R. Ry., Colo.: Dec. 1910 to April 1911 Supt. of Constr., Ely Packing Co., built \$40 000 packing and cold storage plant: April 1911 to Jan. 1913 Asst. Engr., Nevada Petroleum Co., Coalinga, Cal., charge office records, well projections, construction: Jan. 1913 to Oct. 1914 Asst. Engr., Panama Pacific Exposition Co., in charge of preparation of detail estimates for all structures: Dec. 1914 to March 1915 Draftsman, Uintah Ry. Co., Colorado, Government valuation: July to Aug. 1915 Draftsman, Nevada Northern Ry. Co., plans for depot: Aug. to Nov. 1915 Asst. Engr., Radersburg Ry. Co., Montana, in charge 30 miles preliminary and location surveys for standard gauge road: Nov. 1915 to July 1916 private surveys, Utah: July 1916 to Dec. 1917 Head Draftsman, Utah Copper Co., Office of Constr. Engr., on \$1 300 000 leaching plant, plans and estimates, canal enlargement (27 miles): Dec. 1917 to April 1919 with Utah Copper Co., 4 months as Valuation Engr., Garfield, Utah, valuation of Magna Plant \$5 500 000; 9 months Supt. of Constr., in charge new construction (\$1 500 000), crushing plants, car-dumpers, etc.; and last 3 months Constr. Engr., Arthur Plant: May 1919 to Dec. 1920 Cost Engr., California Constr. Co., San Francisco, estimates and costs, highway construction: Dec. 1920 to Aug. 1922 private work, Asst. to Baker & Carpenter on earth-bowl type stadium, Strawberry Canyon, University of California; Associate Engr. with Walter Stalder, oil field valuations, etc.: Aug. 1922 to Jan. 1924 Res. Engr., California Memorial Stadium, Berkeley, charge of preliminary surveys and in executive charge of construction of \$1 300 000 stadium. (Active practice 19.2 years: Res. Ch. 11.9: Design 2). Refers to D. W. Albert, S. Baker, E. E. Carpenter, A. Judell, H. A. Kluegel, C. D. Vail.

PARRY, CHARLES EDWARD—316 Glenside Ave., Glenside, Pa.—(Age 47. Born Newcastle-on-Tyne, England.) (M. A., B. Sc., Cambridge Univ., England, 1897.)—Nov. 1898 to Feb. 1906 associated with his father, on consulting engineering work in India, Africa and European countries, railroad location, bridges and water-works, design and construction: Feb. 1906 to April 1912 Asst. Chf. Draftsman in Mech. Dept., design and maintenance of way, Minneapolis, St. Paul & Sault Ste. Marie R. R.: April 1912 to April 1913 Asst. Chf. Draftsman on paper mill design and construction, Minnesota & Ontario Power Co., International Falls, Minn.: April 1913 to Dec. 1914 City Engr., Ft. Francis, Ont., Canada, in charge of work and design, surveys and all municipal improvements; also private practice in design of residences, schoolhouses, county bridges, etc.: Dec. 1914 to Sept. 1915 Capt., Royal Engrs., England, sapping, bridge demolition, bridge building: Sept. 1915 to Aug. 1916 Res. Engr. on highway work, Dixie Highway, West Palm Beach, Fla.: Aug. 1916 to Aug. 1917 in charge of work on design and construction, washers and storage bins, mine surveys and equipment, American Cyanamid Co., Brewster, Fla.: Aug. to Dec. 1917 Asst. Engr., Tampa Dock Co., Emergency Fleet Corporation, mould loft and drafting room: Dec. 1917 to April 1920 Prin. Asst. City Engr., Allentown, Pa., in charge of all construction and design on municipal improvements, including design of comfort station, sewage-disposal plant, sewers, paving, etc.: April 1920 to Jan. 1922 Chf. Engr., construction and design, Municipal Disposal Co., Philadelphia, Pa., in charge of both on sewage-disposal plants: Jan. to June 1922 Asst. Engr., Public Service Comm. of Pennsylvania, on valuation work, in charge of computation and valuation of Philadelphia Suburban, Gas and Electric Case: June 1922 to date Chf. Engr., Direct Oxidation Corporation, Philadelphia, in charge of construction, design and contracts: registered as Prof. Engr. in Pennsylvania. (Active practice 24.7 years: Res. Ch. 18: Design 9). Refers to G. D. Andrews, G. A. Johnson, L. Perry, F. H. Snow, G. L. Watson.

PETERMANN, HANS AUGUST—638 Fifty-eighth St., Milwaukee, Wis.—(Age 35. Born Milwaukee, Wis.)—May to Oct. 1904 Rodman with T. S. Engel, Milwaukee, on surveys: 234 March to Sept., 1905 Rodman, and Sept. 1908 to Sept. 1909 Instrumentman, Milwaukee Elec. Ry. & Light Co.: 1909-1910 and 1912-1915 (3½ years) student, Coll. of Civ. Eng., Univ. of Wisconsin: Jan. 1911 to Jan. 1912 Rodman and Levelman, City Engr.'s office, Milwaukee; Jan. 1915 to April 1917 Recorder, Instrumentman and Computer, Interstate Commerce Comm., on railroad valuation: April to Oct. 1917 Engr. Inspector, Milwaukee Sewerage Comm., on construction of pipe and reinforced concrete intercepting sewers: 1917 to 1919 (2 years) Asst. Engr., Chicago, Milwaukee & St. Paul Ry., on valuation: Nov. 1919 to March 1920 Senior Engr., Water Dept., Milwaukee, on study of distribution system: April 1920 to Jan. 1921 Chf. Draftsman, City Engr.'s office,

Milwaukee, in charge of drafting room, plans for sewers, water pipe-lines, reinforced concrete walls and sidewalks: Feb. 1921 to Dec. 1922 Senior Engr., and Jan. to June 1923 Asst. City Planning Engr., Board of Public Land Comms., Milwaukee, city planning: June 1923 to date (over 7 months) in private practice of civil engineering, construction of sewers, water pipe-lines, platting subdivisions, etc. (Active practice 12 years: Sub-Prof. work 1.5: Prof. work 10.5: Res. Ch. 8.7: Design 0.3). Refers to W. A. Christian, O. H. Frick, C. S. Gruetzmacher, C. T. Jackson, A. L. Kurtz, L. S. Smith.

PICKELS, GEORGE WELLINGTON—910 S. Lincoln Ave., Urbana, Ill.—(Age 40. Born Richmond, Ky.) (B. C. E., Univ. of Ky., 1904; C. E., Univ. of Ill., 1911.)—Oct. 1904 to Nov. 1906 Rodman, Chainman and Instrumentman, and Nov. 1906 to Sept. 1907 Res. Engr. on construction, Chicago & Alton R. R.: Sept. 1907 to Sept. 1914 Instructor (8) in Civ. Eng., Sept. 1914 to June 1917, and Jan. to June 1919 Associate in Civ. Eng., and Sept. 1919 to date Asst. Prof. of Civ. Eng., Univ. of Illinois: June 1917 to Dec. 1918 Head of Dept. of Aids to Flight, U. S. School of Military Aeronautics, Univ. of Illinois: June to Sept. of years 1919-1921 Drainage Engr., Illinois State Geological Survey, on investigation of, and (last 3 months) on preparation of bulletin on, drainage situation in Illinois. (Active practice 19.1 years: Sub-Prof. work 2.1: Prof. work 17: Res. Ch. 6.9). Refers to C. E. DeLeuw, W. D. Gerber, F. H. Newell, A. N. Talbot, C. C. Wiley, C. C. Williams.

PROCTOR, CLARENCE DIVOLL—42 Tennyson St., Somerville, Mass.—(Age 39. Born Charlestown, N. H.) (A. B., Harvard Coll., 1906.)—1905 to 1912 (6½ years) Draftsman, H. T. Eastman & Co., detailing structural steel, some design and estimating: took night courses at Franklin Union on structural steel and reinforced concrete design: 1912 to 1914 (2½ years) Draftsman, Engr., and Inspector, E. A. Tucker Co., Boston, detailing and estimating reinforcing steel; Res. Engr. and Field Inspector: 1915 to 1918 (4 years) Designing Engr. and most of time Chf. Engr., Concrete Steel Products Co., in charge of reinforced concrete design and estimating: 1919 to 1923 (4 years) Dist. Engr. of Boston office, Concrete Steel Co., in charge of design and estimating: 1923 to date (1 year) Chf. Engr. in charge of Reinforced Bar Dept., Penn Metal Co. (Active practice 18 years: Sub-Prof. work 9: Prof. work 9: Res. Ch. 8: Design 9). Refers to W. M. Bailey, B. S. Brown, W. T. Reed, G. Small, E. A. Tucker.

RAITT, JOHN WILLIAM—Room 101 Terminal Bldg., Norfolk, Va.—(Age 43. Born Shawneetown, Ill.)—1898 to 1901 (3 years) Axeman, Chainman and Rodman, C., P. & V. Ry. (now Norfolk & Western Ry.): 1902 to 1905 and 1907 to 1912 Draftsman in office of Engr. of Branch Lines, N. & W. Ry.: 1905 to 1906 Draftsman in office of (5) Supt. of Constr., Cleveland, Cincinnati, Chicago & St. Louis Ry.: 1913 to date with N. & W. Ry., six years as Office Engr. to Engr., Branch Lines, in charge of drawing room and Asst. on all work; 1 year Chf. Draftsman, office of Chf. Engr.: 1920 to 1922 (3 years) Office Engr. in office of Chf. Engr., general supervision of drawing room and Office Asst. to Chf. Engr.; past year Asst. Engr. at Norfolk, in charge of all engineering work on Norfolk Terminals and on Norfolk Div. east of Crewe, Va. (Active practice 24.1 years: Res. Ch. 11). Refers to C. S. Churchill, J. E. Crawford, J. R. Schick, F. P. Turner, W. P. Wiltsee.

RAYNER, WILLIAM HORACE—103 Engineering Hall, Urbana, Ill.—(Age 40. Born Ewing, Nebr.) (C. E., 1913, and M. S., Coll. of Education, 1920, Univ. of Ill.)—Oct. 1902 to Feb. 1906 Chainman, Rodman, Leveler, Draftsman and Topographer, Illinois Central Ry., C., C. & St. P. Ry. and Chicago & North Western Ry.: June 1909 to Sept. 1910 (8) Jun. Topographer, U. S. Geological Survey: June to Sept. of years 1911 and 1912 traversing roads, streams and ridges, and sketching topography in Ohio: Sept. 1910 to Sept. 1918 at Univ. of Illinois, 3 years as Instructor in Civ. Engr. and 3 years Associate in Civ. Eng., teaching plane, topographic and railroad surveying and course in technical writing: June to Sept. 1913 in joint charge with R. E. Davis of precise triangulation system survey for Univ. of Illinois; field work and computation: June to Sept. 1915 in joint charge with R. E. Davis of large scale topographic survey of Mine La Motte property at Mine La Motte, Mo.: June to Sept. 1917 Asst. Topographer, U. S. Geological Survey, in charge of field party and sketching topography in Florida: 1919 (over 2 months) also in charge of large scale topographic survey of campus and south farm of Univ. of Illinois: Sept. 1919 to date Asst. Prof. of Surveying, Univ. of Illinois, in charge of courses in surveying, including course in Graduate School to students in

geology; graduate work in education; research in education and surveying. (Active practice 16.7 years: Sub-Prof. work 4.2: Prof. work 12.5: Res. Ch. 5.5: Design 5.2). Refers to I. O. Baker, R. E. Davis, M. L. Enger, H. H. Jordan, F. H. Newell, A. N. Talbot, C. C. Wiley, W. M. Wilson.

REES, GEORGE DONALD—3721 Metropolitan Ave., Kansas City, Kans.—(Age 29. Born Topeka, Kans.)—Sept. 1914 to June 1915 and Sept. 1915 to May 1916 student in engineering, Washburn Coll., Topeka, Kans.; June to Sept. 1915 Inspector, piling, material, concrete, Atchison, Topeka & Santa Fe Ry.; May to Nov. 1916 Res. Engr., Gulf, Colorado (14) & Santa Fe Ry. Fuel Oil Dept., Ardmore, Okla.; Nov. 1916 to June 1917 Rodman and Instrumentman, A. T. & S. F. Ry.; June 1917 to May 1919 with 110th Engrs., U. S. Army, non-commissioned officer mostly: Sept. 1919 to date with Sinclair Refining Co. as follows: Sept. 1919 to Oct. 1920 Asst. Engr. on maintenance and drafting; Oct. 1920-March 1921 Asst. Constr. Engr., general inspection of construction work; April 1921 to Oct. 1922 Asst. Engr., maintenance, drafting and design; since Oct. 1922 Asst. Engr. (Constr.), direction of construction work. (Active practice 7.3 years: Res. Ch. 1.6). Refers to E. T. Almy, Jr., L. Arnold, C. M. Buck, H. W. Crawford, J. S. Hess, K. K. Wyatt.

REEVES, WILLIAM HENRY—385 Belvedere Ave., Jacksonville, Fla.—(Age 40. Born Nashville, Ill.)—Feb. 1907 to Aug. 1911 with Layne & Bowler Co., Water Supply Contrs. 240 and Mfrs. of turbine pumps, well screens, packers, drilling equipment, etc., until July 1908 as Stenographer to Pres. and Vice-Pres., prepared specifications and contracts for (10) water supply and pumping plants under supervision of Vice-Pres.; then Gen. Officeman, Arkansas Div., responsible for field operation records, prepared specifications and contracts for pumping plants; and after Oct. 1909 Asst. to Shop Supt., Arkansas Div., in charge of records, responsible for co-ordination of factory and field operations (over 350 complete plants installed, including steam or oil-driven power plants; gravel wall well, including gravel retaining cone was perfected): Aug. 1911 to June 1917 Office Mgr., E. H. Noble & Co., Stuttgart, Ark., general insurance, in charge of office, interpreting and applying rates promulgated by State Actuarial Bureau, surveying and classifying new and unrated risks according to rules and regulations issued by Engrs. of State Actuarial Bureau; Sept. 1917 to Jan. 1923 with Layne & Bowler Co., until Jan. 1918 as Mgr., Dist. Sales Office, Chicago, Ill., for North Central Territory, heavy turbine pumping equipment for water-works, mine drainage and irrigation projects; prepared specifications and contracts for this territory; full charge of all sales work; then (over 5 years) Asst. Sales Mgr., general offices and factory, at Memphis, Tenn., directly responsible for sales work, including preparation of specifications and contracts; rejected or approved estimates, specifications, plans and sales contracts for entire organization (installations aggregated \$7 500 000); Member, Factory Eng. and Design Board; directly responsible for co-operation of Sales Dept. with Mfg. and Field Constr. Depts.; Jan. 1923 to date Vice-Pres. and Gen. Mgr., Layne Southeastern Co., Jacksonville, Fla. (Subsidiary to Layne & Bowler Co.), full charge and responsibility for all design, plans and specifications covering water-works and pumping plants installed. (Active practice 16.9 years: Res. Ch. 5.4: Design 1). Refers to R. S. Charles, A. L. Dabney, J. G. Gordon, Jr., W. B. Gregory, R. E. McDonnell, R. G. Ridgely.

RIGHTS, THEODORE BALFOUR—444 Mercer Ave., Roselle, N. J.—(Age 23. Born East Berlin, Conn.) (C. E., Pol. Inst. of Brooklyn, 1922.)—June to Aug. 1920 Timekeeper, 241 Shoemaker Bridge Co., Pottstown, Pa., on structural steel erection of fertilizer building at Baltimore, Md.; June to Sept. 1921 Pusher and Asst. Engr., Adirondack Power & (1) Light Corporation, Amsterdam, N. Y., on steel erection: Sept.-Nov. 1921 Ironworker, Shoemaker Bridge Co., on erection of power plant: Dec. 1921 to April 1922 Inspector with Robert W. Hunt, New York City, on erection of Hell Gate Power Station for United Light & Power Co., New York City: April to Sept. 1922 Draftsman on steel buildings, with Post & McCord, New York City: Oct. 1922 to Nov. 1923 Instructor in Civ. Eng. and Surveying, Hefley Inst., Brooklyn, N. Y.; Dec. 1923 Draftsman, Erie R. R. (Active practice 2.2 years: Sub-Prof. work 1: Prof. work 1.2: Res. Ch. 1.2). Refers to H. P. Hammond, C. W. Hudson, J. C. Ogden, R. Ridgway, L. D. Rights, A. Weymouth.

RIVKIN, BERNARD MORRIS—80 West St., Hyde Park, Mass.—(Age 28. Born Georgenburg, Lithuania.)—Student, Johns Hopkins Univ. (1915-1917) and Massachusetts Inst. of Technology (1919-1920 and 1921-1922): Aug. 1917 to Feb. 1918 Rodman and Transman, cantonment construction and town planning, with Morris Knowles, Inc., Pittsburgh,

- (2) Pa.: Feb. 1918 to Oct. 1919 Transitman and Chf. of Party, Constr. Div., U. S. War Dept., over 7 months on construction of ordnance depot, Curtis Bay, Md., dock construction and railroad yard layout, and over 1 year on valuation surveys of cantonments and depots, cost analysis of cantonment construction: June 1920 to Oct. 1921 and Aug. 1922 to date Asst. Engr., Massachusetts Dept. of Public Works, 1½ years with Div. of Highways on construction of 3½ miles of road in Seekonk, 4 miles of concrete road in Hancock and 6 miles of bituminous macadam road in Agawam, Mass.; past 1½ years on highway construction and design, preliminary and final surveys. (Active practice 5.1 years: Sub-Prof. work 1.2: Prof. work 1.4: Res. Ch. 2.5). Refers to W. G. Addis, A. W. Dean, L. B. Hoyt, J. A. Johnston, C. B. Lindholm.

- RODEGERDTS, CHRIS AUGUST—1726 Grove St., San Francisco, Cal.—(Age 37. Born Sacramento, Cal.) (B. S., Univ. of Cal., 1910.)—1910 to 1911 (nearly 1 year) on various work, surveying, assisting in mine appraisals, 1½ months Asst. to F. Lynwood Garrison, examination new Kimberly (Nev.) Mines: 1911 to 1912 Asst. Engr., City of (13) San Francisco, responsible charge, field supervision, installation high-pressure salt-water fire-protection system (nearly 5 months); Engr., Excelsior Water & Min. Co., Grass Valley, Cal., ditch line, and reservoir construction, surveying, responsible charge (6 months): 1912 to 1913 (nearly 1 year) Hydr. Engr., responsible charge examination for Bainbridge Seymour, London, England, of Nueva California Mines, Peru, South America: 1913 to 1915 (nearly 2 years) Bldg. Inspector, Panama-Pacific Exposition Co., San Francisco, responsible charge supervising building constructions: 1915 to 1917 over 2 years) Chf. Engr., Atolia (Cal.) Min. Co., design and full charge during construction of mine hoist, head-frame and shaft, also surface buildings: 1917 to 1922 (4 years) Asst. Naval Constructor in responsible charge construction of lighter-than-air craft, U. S. Navy: 1923 to date (nearly 9 months) Engr., Loan Dept., S. W. Straus Co., San Francisco, responsible for analysis of building plans and specifications for efficiency and economy of cost, field inspection of new constructions. (Active practice 11.4 years: Sub-Prof. work 1.4: Prof. work 10: Res. Ch. 8.4: Design 1.5). Refers to H. S. B. Bonte, E. O. Burgess, J. R. Cahill, T. F. Chace, E. A. Evans, A. Huber, Jr.

- SARAFIOGLOU, ANESTIS GEORGE—Robert Coll., Bebec, Constantinople, Turkey—(Age 28. Born Urgub, Turkey.) (A. B., Anatolia Coll., Marsovan, 1914; B. Sc. in C. E., 244 Robert Coll., 1921.)—1916 to 1918 in military service, 1 year with Automobile Regt., Chauffeur School, Schichli, Constantinople, Mech. Draftsman, garage management and (1) Asst. Supervisor of constructional works; 1½ years on design and construction of benzine depot (estimated value \$500 without labor), single story building (brick \$675 without labor), extended garage building for foundry and forge (\$1 100 without labor), some survey and map work, and plans and sketches of various existing buildings, etc.: 1918 to 1919 (1 year) contracting works, associated with M. Boyadjoglou, Archt., Bahtiar Han Galata, Constantinople; extension to telephone building, Tahta Kale, Stamboul; Asst. in design and estimate of work (reinforced concrete); several designs of warehouses, buildings with estimates: 1919 to 1921 (2 years) Asst. Mgr., Edwards & Sons (Near East), Ltd., three complete plans of existing buildings: Gulbenkian Han, Stamboul (2-story building), Bakers' Ltd., stores, Pera, and Grand Garage, Pera; design and estimate of 2-story garage; Asst. to Contr. and visited regularly construction of reinforced concrete warehouse at Djouball, Stamboul: 1921 to Jan. 1923 in Supt.'s office and Instructor in mathematics, Eng. Dept., and 1923 to date Instructor in mathematics, testing materials, mechanism, etc., Eng. School, Robert Coll. (Active practice 5.5 years: Res. Ch. 2.5: Design 3). Refers to H. C. Woods. (Applies in accordance with Sec. 1, Art. 1, of the By-Laws.)

- SCHMIDT, LOUIS—17 East 101st St., New York City—(Age 30. Born Brooklyn, N. Y.) (B. S. in C. E., Cooper Inst., 1915.)—June 1915 to Jan. 1916 Structural Draftsman, 245 Riter Conley Mfg. Co., Pittsburgh, Pa.: Jan. to June 1916 Structural Steel Draftsman, McClintic-Marshall Co., Pittsburgh, details: Aug. 1916 to Oct. 1919 Structural Steel (1) Designer, Carnegie Steel Co., Edgar Thomson Works and Youngstown (Ohio) Works, design of pumping station, merchant mill buildings, steel for open hearth furnace building, ore bridge and foot bridges: Nov. 1919 to Dec. 1921 Structural Designer, Midvale Steel & Ordnance Co., Coatesville, Pa., designed structure for skelp mill, coke breeze disposal plant, consisting of tower supporting tank and platforms, steel for top of blast furnace and skip: April 1922 to May 1923 Structural Engr., Walter Kidde & Co., New York City, designed and checked Latham Printing Plant erected at Long Island: May 1923 to date member of firm, Nicander & Schmidt, New York City, designed coal tower

and conveyer bridges, trestles for Guarantee Constr. Co., New York City; designs occasionally and responsible for all designs of firm; at present checking design of cement plant for Mashek Eng. Co. (Active practice 8.1 years: Sub-Prof. work 1: Prof. work 7: Res. Ch. 1.7: Design 5.2). Refers to A. Fischer, Jr., A. Gelst, W. Goedecke, A. B. Miller, T. S. Williams.

SEBASTIAN, WALTER—516 Reading Terminal, Philadelphia, Pa.—(Age 47. Born Zellenople, Pa.)—Aug. 1895 to April 1899 Chairman, Rodman, Instrumentman and Inspector, 246 Eng. Dept., Williamsport, Pa., on city surveying, both field and office work, also on paving and sewer construction, including laboratory work on cement testing; April (4) 1899 to March 1900 Transitman, Philadelphia & Reading Ry., until Dec. 1899 in Res. Engr.'s office, at Williamsport, Pa., in charge of resurvey of Little Schuylkill R. R. (28½ miles), also double tracking (5½ miles), latter work including change of alignment and grades, involving grading, track and masonry construction; then in Chf. Engr.'s Dept., on surveying and drafting, Philadelphia, Pa.: March to June 1900 Rodman, Pennsylvania R. R.: June 1900 to date in Chf. Engr.'s office, P. & R. Ry., Philadelphia, until Oct. 1906 as Transitman, then Draftsman, and since Oct. 1909 Asst. Engr. in charge of surveys, plans and construction of miscellaneous structures; in supervisory way work involves designing, estimating and writing specifications, planning and locating branch railroads, change of grade and line of existing railroads, freight and passenger station preliminary layouts, industrial siding connections, belt line railroads, coal yards, engine coaling and water stations, and avoidance of railroad and highway grade crossings. (Active practice 28.5 years: Sub-Prof. work 14.2: Prof. work 14.3: Res. Ch. 14.3: Design 12). Refers to E. Y. Allen, E. F. Dawson, C. Dillenbeck, C. Hansel, A. E. Owen, S. T. Wagner.

SIMBERG, HARRY—1540 Fifty-sixth St., Brooklyn, N. Y.—(Age 23. Born New York City.) (C. E., Brooklyn Pol. Inst., 1923.)—July 1923 to date Instrumentman, Phoenix 247 Utility Co., Hawley, Pa. (Active practice 0.5 year). Refers to H. R. Codwise, H. P. (1) Hammond, C. W. Hudson, F. A. Renner, E. J. Squire.

SIMMONS, DONALD JACKSON—601 First National Bank, Vicksburg, Miss.—(Age 26. Born Magnolia, Miss.) (B. E., 1918, and C. E., 1923, Univ. of Miss.)—June 1915 to 248 Sept. 1916 Draftsman, with X. A. Kramer, Magnolia, Miss., reducing field notes, plotting road profiles and general drafting: May to Sept. 1917 Draftsman with City Engr., (10) Jackson, Miss., city tax valuation maps, topographical surveys and maps for military camp sites: May 1918 to March 1919 Instrumentman with Constr. Q. M., Camp McClellan, Anniston, Ala., Instrumentman on construction of sanitary sewer system, record surveys and maps of sanitary sewer system as constructed: March to June 1919 Instrumentman with C. F. Sherman, Dist. Engr., McComb, Miss., location surveys and plans for Sec. B, Mississippi Federal Aid Project No. 10, Lincoln County, Miss.: June 1919 to July 1921 Asst. Engr. with M. L. Culley, Cons. Engr., Jackson, Miss., responsible charge of surveys and plans for Mississippi Federal Aid Project No. 55 (35 miles highway, Panola County, Miss.), survey and design of sanitary sewer system for Sardis, Miss., design of disposal plant for sewer system at Brookhaven, Miss., of water supply for Amite, La., and of storm sewers, street paving and beach-front protection for Biloxi, Miss.; 8 months Res. Engr. on construction of sanitary sewer system and disposal plant for Brookhaven, Miss.: July 1921 to March 1922 Project Engr., Mississippi State Highway Dept., on Mississippi Federal Aid Project No. 55, Panola County, Miss.: March 1922 to date Engr. of Bridges, Warren County Highway Comm., Vicksburg, Miss.; Engr. in charge of location, design and supervision of all bridges being constructed under county bond issues, including two large bridges (one fixed and one movable) over Big Black River. (Active practice 7.3 years: Sub-Prof. work 1.9: Prof. work 5.4: Res. Ch. 5.4: Design 4.7). Refers to M. L. Culley, J. H. Dorroh, J. E. Fontaine, A. B. Hargis, C. M. Kerr, D. F. McLeod, H. M. Marshall.

SIMMONS, HAROLD—68 Arnold Terrace, South Orange, N. J.—(Age 23. Born Jersey City, N. J.)—May 1920 to March 1921 Rodman, New York & New Jersey Tunnel Comm., 249 New York City: Feb. to Aug. 1922 Field Engr. on layout, The Austin Co., Philadelphia, Pa.: Aug. to Dec. 1922 Field Engr., layout and on reinforced steel, Turner Constr. Co., (1) New York City: Jan. to Feb. 1923 Leveler, Central R. R. of New Jersey: Feb. to July 1923 Job Foreman in charge, Tilghman Mayer Co., Gen. Contrs., Allentown, Pa.: July 1923 to Jan. 1924 with Western Elec. Co., Kearny, N. J., first as Transitman (Chf. of Party), later in Inspection Dept., triangulation, reinforced steel and pile-driving.

(Active practice 3 years; Sub-Prof. work 3; Res. Ch. 1.4). Refers to R. M. Beck, M. H. Freeman, C. S. Gleim, R. L. Hart, M. I. Killmer, A. H. Pratt, G. H. Preston, H. E. Van Ness.

SMITH, JOSEPH WILSON—61 Christopher St., Montclair, N. J.—(Age 44. Born Hazleton, Pa.) (C. E., Lafayette Coll., 1904.)—June 1904 to May 1908 with Erie R. R., until 250 Sept. 1905 as Transitman; then Inspector in charge of construction of foundation, ferry racks and superstructure, 23d St. Station, and reconstruction of foundations of Chambers St. Station, New York; after Feb. 1907 Res. Engr. on design and reconstruction of ferry racks, Chambers St., reconstruction of foundations of Chambers St. Station, extension of freight sheds, piers 20 and 21, New York; construction of double-track drawbridge across Hackensack River at Snake Hill, N. J., and of reinforced concrete buildings, Weehawken, N. J.; May 1908 to Feb. 1909 preliminary and location surveys for part of E. C. & W. Elec. Ry. and construction of same; Feb. 1909 to date with Erie R. R. as follows: Feb. 1909 to April 1910 Res. Engr. on construction of subway station, Jersey City, foundations of 4-track viaduct (1 776 ft. long) on concrete caissons, Jersey City, 1 mile double-track railroad and rearrangement of yard tracks, Jersey City Terminal; April 1910 to Aug. 1911 Res. Engr. on construction of 7 miles double track, Olean to Alleghany, N. Y., entire charge of work; Aug. 1911 to Feb. 1912 Res. Engr. on construction of concrete grain elevator and repairs to frame elevator, Chicago, Ill.; Feb. 1912 to Jan. 1914 Asst. Engr., preliminary surveys, plans, estimates, final plans and construction of 100 miles of second track and grade revision of C. & E. R. R., Ohio, construction of 35 miles second track and grade revision, E. R. R., Pennsylvania; Jan. 1914 to Jan. 1917 Dist. Engr., construction of engine terminals, piers, yards and elimination of grade crossings, involving expenditure of approx. \$2 000 000; since Jan. 1917 Asst. Valuation Engr., Federal valuation of railroads. (Active practice 19.4 years; Sub-Prof. work 1.2; Prof. work 18.1; Res. Ch. 11.6; Design 5.1). Refers to G. H. Burgess, W. M. Dawley, H. F. King, C. H. Moore, R. S. Parsons, C. H. Spiltstone, F. S. Storey, F. L. Stuart.

SPELMAN, HOWARD RODGERS—219 Lakeview Ave., Rockville Centre, N. Y.—(Age 24. Born Brooklyn, N. Y.) (B. S., N. Y. State Coll. of Forestry, Syracuse Univ., 1920; 251 M. F., Yale Forest School, 1922.)—May to Oct. 1919 Field Asst., U. S. Forest Service, on traverse board mapping for grazing and forest types; July 1920 to May 1921 Field (1) Asst., Mapper, Transitman, and Chf. of Party, Wayagamack Pulp & Paper Co., Three Rivers, Que., Canada, on forest surveys, transit baselines, planetable work, topographic mapping, timber estimates; May to Oct. 1921 Asst. Engr., Transitman, with John R. Spelman, New York City, on survey work for Long Beach (N. Y.) Bridge; July 1922 to date Asst. Engr., Chf. of Party with John R. Spelman, on soundings, current velocities, topography, triangulation, road location, vertical control for dredging work, design and estimate for bridge and bulkhead. (Active practice 2.9 years; Res. Ch. 1.3; Design 0.5). Refers to F. P. Kafka, S. D. Sarason, J. R. Spelman, W. F. Starks, F. C. Wolfe.

STARR, CHARLES FREDERICK—666 Plymouth Ave., Rochester, N. Y.—(Age 33. Born Rochester, N. Y.) (B. S., Univ. of Rochester, 1912; C. E., Cornell Univ., 1915.)—252 June to Sept. 1910 Asst. to Chainman, and June to Sept. 1911 Chainman, Water-Works Bureau, Dept. of Eng., Rochester, N. Y.; July 1915 to Feb. 1917 Rodman, New York (3) State Dept. of Highways, in charge of construction of new roads in Orleans County, in full charge of field construction surveys, grades, inspection of materials and work and estimates; Feb. 1917 to date with Genesee Bridge Co., Inc., Rochester, until May 1918 as Asst. Engr., on design of steel structures, frames, trusses, bridges, buildings, tanks, etc., and estimating costs of same; field work and drafting in connection with steel details (work done under supervision of Chf. Engr.); then Chf. Engr. in full charge of estimating and design of steel structures of all types, general supervision of all office and field work in connection with same. (Active practice 8.5 years; Res. Ch. 6.7; Design 7.4). Refers to J. F. Ancona, S. M. Brown, A. H. Metcalfe, J. F. Skinner, W. G. Wildes.

STECKELBERG, WILLIAM DUNCAN JOHN—Madison, Nebr.—(Age 41. Born New York City.)—1902 to 1908 student (part of time), Civ. Eng. course, Univ. of Nebraska, and 253 in field surveying; with Geo. F. Cottrell and F. H. Whitworth, in Seattle (1 year); Asst. Chf. Engr., Mexican Pacific Co., Acapulco, Mexico, associated with Leo T. (14) Greenough of Missoula, Mont., and Kenneth S. Littlejohn of Los Angeles (1 year);

summers 1905-1907 with Geo. W. Bates surveying government lands; 1908 to 1914 (6 years) Field or Layout Engr., Eng. Dept., Lincoln, Nebr., laying out paving, sewerage and water-works extension, etc., and during winter making maps and estimates; 1914 to 1916 (2 years) Deputy State Engr., Nebraska, had charge of road project and county bridge consultation and Referee in drainage district disputes; also direct charge of construction of 12 000 yd. of brick paving; 1916 to date (8 years) in private practice as Cons. Engr.; designed paving, sewage-disposal works and water extension systems and other work; work included paving, design and construction superintendence at Pierce, Nebr.; paving and disposal works for sewage, design and construction at Newman Grove, Nebr.; water-works extension, plans, specifications and superintendence at Tilden, Nebr.; paving plans, storm sewer plans, specifications, plans, estimates and superintendence at Madison, Nebr.; establishment of street grades at Creston, Nebr.; plans, estimates, specifications for paving (under contract) at Battle Creek, Nebr.; paving, plans, specifications and estimates, also concrete bridge design (under contract) at Stanton, Nebr.; has had direct personal charge of all work, making plans, specifications, estimates of cost and superintending construction of public and private work and assessing cost of public work. (Active practice 16 years: Res. Ch. 15: Design 10). Refers to F. T. Darrow, D. R. Donlen, A. H. Edgren, D. L. Erickson, W. Grant, C. E. Mickey.

STEPHENSON, ROBERT—San Pedro de Macoris, Dominican Republic—(Age 36. Born Tabor, N. J.) (B. A., Columbia Univ., New York City, 1909.)—1909-1910 (1 year) 254 at Yale Forest School, New Haven, Conn.: June 1910 to April 1911 Field Asst., U. S. Forest Service, running plane-table and estimating timber on national forests in (1) Colorado, Arizona and Arkansas: May 1911 to Feb. 1912 Field Asst., Laurentide Co., Grandmere, Canada, on land and topographic surveys and timber estimating: Feb. to May 1912 Asst. to State Forester of Connecticut, on valuation of timber lands and organization of fire-protection system: May 1912 to Feb. 1913 Asst. Topographer, Yale-Peruvian Expedition, on plane-table surveys in Peru: April 1913 to Aug. 1917 Forest Ranger (later in charge of highway construction and location), charge of timber sales, Carson National Forest, Taos, N. Mex. (1½ years), and of location and construction of highways: Aug. 1917 to April 1918 Chf. of Party, New Mexico State Highway Comm., on location of Federal aid roads: May to Aug. 1918 Asst. to Ellwood Wilson and Chf. of Party, Canadian Munitions Board, in charge of grading and shipping spruce (about 1½ months), and timber surveys (over 2 months): Sept. to Nov. 1918 Chf. of Party, Merchants Shipbuilding Corporation, Harriman, Pa., on layout and inspection of sewers and pavements: Nov. 1918 to Nov. 1920 Field Engr., Hughes Foulkrod Co., in charge of field work on construction of industrial buildings: Dec. 1920 to Dec. 1921 Asst. Engr., United Fruit Co., in charge of farm surveys and location and construction of irrigation ditches and structures; also made plans and estimates for same: June 1922 to date Engr., Consuelo Estate (under Estate Mgr.), San Pedro de Macoris, Dominican Republic, has built approx. 10 miles of railroad, located this and designed the culverts and bridges, also located and is building about 6 miles of drainage canals. (Active practice 12.5 years: Res. Ch. 10.9). Refers to F. I. Foulkrod, J. A. French, J. C. Harvey, W. R. Hughes, Jr., G. S. Rinehart.

SULLIVAN, DANIEL MAYNARD—59 St. Andrew Rd., East Boston, Mass.—(Age 36. Born Newport, R. I.) (B. S. in C. E., Tufts Coll., 1911.)—July to Oct. 1910 and July to 255 Aug. 1911 Topographic Aid, U. S. Geological Survey, Washington, D. C., in charge of leveling and planetable parties: Aug. 1911 to date with Public Works Dept., Boston, (2) Mass., as Rodman, etc., up to Asst. Engr. (in 1916) in charge of construction and maintenance of high-pressure fire service system; at present Engr. in charge of high-pressure fire service. (Active practice 12.4 years: Sub-Prof. work 4.4: Prof. work 8: Res. Ch. 8: Design 1). Refers to J. E. Carty, C. J. Carven, E. S. Dorr, F. A. McInnes, T. E. Lally.

SURVEYOR, ARTHUR—511 St. Catherine St., West, Montreal, Que., Canada—(Age 45. Born Montreal, Que., Canada.) (B. A., Laval Univ., Montreal, 1898; B. Ap. Sc., Ecole 256 Polytechnique, 1902.)—1903-1904—C. E. post-graduate course at Ecole Spéciale d'Industrie et des Mines du Hainaut, Mons, Belgium: 1904-1911 with Public Works (3) Dept. of Canada as Asst. Engr. on Georgian Bay Ship Canal survey, field work, design of lock and dams, etc.; report on applications of hydro-electric companies to divert water from St. Lawrence River; Superv. Engr. during construction of Port Arthur Dry Dock and Shipbuilding Plant (700 ft. long, 125 ft. wide, cost \$1 800 000); report on

project to dam the St. Lawrence: July 1911 to date in private practice in Montreal; Aug. 1911 appointed by Federal Govt. member of St. Lawrence River Comm. to judge difficulties between hydro-electric and ship-owning companies; 1912 report to Federal Govt. on effect of Chicago Drainage Canal diversion on harbors of St. Lawrence and Great Lakes; joint report on opportunity of Government guaranteeing bonds of Montreal Tunnel Co. (\$15 000 000) and Montreal Central Terminal Co. (\$7 500 000); design and supervision of construction of two small hydro-electric plants (\$60 000 and \$130 000), sidewalks for town of Grand Mere (\$50 000), a pumping station operated by water turbine (\$40 000), 4 000-h. p. hydro-electric plant for Two Miles Falls Water Power Co.; report on regulation of Batiscan River; report to Shipping Federation of Canada on effect of construction of partial dams on St. Lawrence River below Montreal; report to Quebec Streams Comm. on contractors' claims and on quality and economy of construction of Gouin Dam at head of St. Maurice River (cost \$1 710 000), and other reports; member of Committee, representing rate-paying engineers of Montreal, to report on proposed expenditure of \$12 000 000 for hydro-electric municipal plant; preliminary design and estimate of 240 000-h. p. development at Carillon on Ottawa River; joint appraisal with W. B. Richards & Co. of plant of National Farming Machinery Co.; preliminary estimate and design for 70-ton Kraft paper mill; preparation of construction plans for 1 500 000-gal. reinforced concrete reservoir for Canadian Pacific Ry.; important works in progress include design and supervision of construction of 6-story department store for Dupuis Freres (\$650 000), design and supervision of construction of 6-story building for Baillargeon Express Co. (\$400 000), design and estimate for 9 000-h. p. development for Provincial Public Utilities Co.; valuation of E. B. Eddy Co.'s plant at Hull, including 15 000-h. p. development, several mills, and a match factory (capacity 120 000 000 matches per day); report to Rene T. Leclerc, Investment Bankers, on purchase of \$2 500 000 bond issue for proposed 28 000-h. p. hydro-electric development. Refers to C. R. F. Coutlee, G. H. Duggan, J. M. R. Fairbairn, S. J. Fortin, W. J. Francis, R. D. French, P. A. N. Seurot.

SUTHERLAND, EDWARD FRANCIS—672 Second Ave., San Francisco, Cal.—(Age 23. Born San Francisco, Cal.) (B. S. in C. E., Univ. of Cal., 1922.)—May to July 1922 257 Draftsman, Designer and Inspector on irrigation work, F. H. Tibbets & Co., San Francisco, Cal., design of wood and concrete structures, inspection of such structures; July (13) 1922 to Nov. 1923 Highway Draftsman, and Nov. 1923 to date Jun. Civ. Engr., U. S. Bureau of Public Roads, general highway design; Asst. to Chf. of Party on location survey; Asst. to Res. Highway Engr. on construction. (Active practice 1.6 years: Res. Ch. 0.1; Design 0.9). Refers to L. Brown, R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, C. H. Sweetser.

THOMASON, GEORGE ANDREW—Care, Algernon Blair, Montgomery, Ala.—(Age 25. Born Macon, Ga.) (B. S. in M. E., Ga. School Tech., 1920.)—Feb. 1919 to June 1920 steam 258 engineering and drafting, Atlantic Steel Co., Atlanta, Ga.: June to Oct. 1920 Architectural and Eng. Draftsman, L. W. Robert & Co., Atlanta: Oct. 1920 to March 1921 (10) Res. Engr. and Inspector with Garrett & Slack, Montgomery, Ala., State Highway Dept. of Georgia, four reinforced concrete bridges and approaches, Federal Aid Project No. 112 (about \$75 000): March to May 1921 Reinforced Steel Foreman, So. Ferro-Concrete Co., Atlanta, all in work: since May 1921 with Algernon Blair, Contr., Montgomery, Ala., until May 1922 as Asst. Supt. of Constr., 6 months on five brick and concrete buildings, dormitories, Univ. of Mississipp., Oxford, Miss., supervision of general construction: brick, stone, concrete, steel framing, etc. (about \$200 000); and 6 months on hospital building, brick, stone, concrete, etc., Mississippi Ind. and Tr. School, Columbia, Miss. (about \$60 000); then Field Supt. of Constr., about 10 months as one of three field superintendents in charge of construction of twenty-seven buildings, brick, stone, steel framing, etc., 7½ miles graded concrete road, grading, approaches, etc., U. S. Veterans Hospital, Tuskegee, Ala., under Superv. Archt., Washington, D. C. (about \$1 200 000); and since then in charge of outside construction, six concrete and masonry buildings, U. S. Veterans Hospital No. 74, Gulfport, Miss., Bureau of Yards and Docks (about \$500 000). (Active practice 4.9 years: Sub-Prof. work 1.8; Prof. work 3.1; Res. Ch. 3.1; Design 0.5). Refers to J. A. Fahy, J. M. Garrett, H. E. Lindley, L. W. Robert, Jr., E. C. Seibert, S. B. Slack.

THOMPSON, JOSEPH TRUEMAN—3405 University Pl., Baltimore, Md.—(Age 32. Born Baltimore, Md.) (B. S. in Eng., Johns Hopkins Univ., 1917.)—Oct. 1910 to Dec. 1911 259 Timekeeper and Rodman, Baltimore & Ohio R. R. Co., heavy grading, bridge and

- tunnel construction: Jan. 1912 to Sept. 1913 Instrumentman and Computer, Roland Park Co., Baltimore, Md., field and office work, entailing considerable sanitary sewer and storm water drain design in connection with development of Roland Park-Guilford Dist. of Baltimore City: May 1917 to Dec. 1918 with U. S. Army, Pioneer Engrs., as 2d Lieut., Student Officer (nearly 4 months), 1st Lieut., Instructor, troop duty, 80th Div., United States and A. E. F., France (nearly 9 months), and Capt., troop duty (nearly 5 months): Jan. to Sept. 1919 Asst. Engr., Black & Decker Mfg. Co., Baltimore, experiments and design in field of electric tools: Sept. 1919 to date Instructor (2 years), Associate in Civ. Eng. (equivalent to Asst. Prof.) (1 year), and Associate Prof. of Civ. Eng. (1½ years), Johns Hopkins Univ.: June to Sept. 1920 with Charles T. Main, as Inspector on pile foundations in connection with construction of plant of American Sugar Refining Co. at Baltimore: June to Sept. of years 1921-1923 Highway Research Specialist, U. S. Bureau of Public Roads, Washington, D. C., experimental research on effect of impact forces on road surfaces and highway bridges. (Active practice 9.5 years: Sub-Prof. work 4: Prof. work 5.5: Res. Ch. 3.5). Refers to J. H. Bringham, A. T. Goldbeck, J. H. Gregory, F. S. Harvey, J. C. Little, W. W. Pagon, E. H. Ropes, G. W. Stephens, Jr., C. J. Tilden, E. B. Whitman.
- VAN DER MEIJ, JAN CAREL—Netherlands Harbor Works, Amsterdam, Holland (temporary address, 1050 Eddy St., San Francisco, Cal.) (Age 31. Born Lisse, Holland.) (C. E., 260 Tech. High School, Delft, Holland, 1918.)—Nov. 1915 to March 1916 Ensign, March 1916 to Aug. 1918 Reserve 2d Lieut., and Aug. 1918 to April 1919 Reserve 1st Lieut.
- (1) Eng. Army, Holland, designing and executing several wooden buildings and works of defence in Vreeswijk Sec. of New Holland Water Line: June-Dec. 1919 Engr., Representative at Batavia, Java, Dutch East Indies, of contractors' company, Niham, estimating and supervising execution of brick buildings: Jan. 1920-Aug. 1923 Engr. of Netherlands Harbor Works, Amsterdam, Holland, as Asst. to Representative at Batavia, Java, estimating, executing and administration of sheds and other buildings in reinforced concrete and brick: since Aug. 1923 traveling in Holland, China, Japan, and (since Nov. 1923) in America, studying building construction. (Active practice 7.5 years: Res. Ch. 7.5: Design 3.4). Refers to N. A. Bowers, H. D. Dewell, J. D. Galloway, V. H. Poss. (Applies in accordance with Sec. 1, Art. 1, of the By-Laws.)
- WAGNER, FRANK—P. O. Box 353, Brandford, Conn.—(Age 36. Born Philadelphia, Pa.) (B. S. in C. E., Univ. of Pa., 1911.)—July to Sept. of years 1906 and 1907 Tracer, American Bridge Co., Pencoyd, Pa.: July to Oct. 1909 Instructor in mathematics, Camp Chacura, N. H.: July to Oct. 1910 Leveler, Pennsylvania R. R.: July 1911 to March 1912 Draftsman, American Bridge Co., Pencoyd, Pa., detailing beams, columns and girders: April 1912 to June 1918 Inspector and Asst. Engr., Bureau of Highways, Philadelphia, Pa., inspection of all types of roadways, design and construction of dikes, design, specifications and estimates, highway improvements, valuation of Philadelphia electric buildings, charge of Permit Div., Public Utilities, etc., installation and charge cost data municipal forces: June 1918 to Feb. 1919 Inspector in charge, Merchant Shipbuilding Corporation, Bristol, Pa., inspection of all machinery and material purchased in New York territory: Feb. 1919 to April 1921 Inspector in charge of construction, U. S. R. R. Administration (Feb. to April 1919); then transferred to Cox & Stevens, New York; July 1920 transferred to U. S. Army (War Dept.), except last 4 months in charge of construction of forty \$100 000 barges for Mississippi River trade and four self-propelled barges for New York Barge Canal traffic all for U. S. Govt.; last 4 months in charge of design and construction of 2 000-ton coal tippie at Cordova, Ala.: March to April 1923 Engr., Industrial survey with recommendation for expansion, Buckwalter Stove Works, Royersford, Pa.: May to Nov. 1923 Asst. Engr. with Damon & Foster, Upper Darby, Pa., surveying, design road and sewers, construction of same: Nov. 1923 to date Road Engr., Town of Brandford. (Active practice 10.7 years: Res. Ch. 6.9: Design 3.3). Refers to L. J. Affelder, H. C. Berry, F. L. Castleman, N. Foster, W. G. Grove, C. Haydock, E. J. Ruff.
- WENTWORTH, JOHN PRESCOTT—14 Beacon St., Boston, Mass.—(Age 36. Born Malden, Mass.) (S. B., Mass. Inst. Tech., 1910.)—June 1910 to June 1911 Asst. Instructor, 262 Civ. and San. Eng., Massachusetts Inst. of Technology: July 1911 to Sept. 1917 Asst. Engr. with Metcalf & Eddy, Cons. Engrs., Boston, Mass., as Res. Engr. on housing development, Hopedale, Mass., and for sewerage system, Northeast Harbor, Maine: 1913 to 1915 member of Planning Board, Malden, Mass.: Sept. 1917 to Feb. 1919 1st Lieut. and Capt., San. Corps, U. S. Army; Instructor, Officers' Training Camp;

Camp San. Engr., Camp Wheeler, Ga., and Camp Bragg, N. C.: Feb. 1919 to date with Metcalf & Eddy, until Dec. 1923 as Asst. Engr., supervision of design and construction of part of sewerage system, Lynn, Mass.; supervision of water-works valuations; since Jan. 1924 member of firm. (Active practice 13.5 years: Res. Ch. 8.8: Design 4). Refers to W. T. Barnes, H. K. Barrows, A. W. Cuddeback, H. P. Eddy, C. R. Gow, L. Metcalf, D. Porter.

WHITE, AMBROSE HARDING—100 East 42d St., New York City—(Age 55. Born Bucksport, Me.) (B. C. E., and C. E., 1897, Univ. of Me.)—May 1898 to date Engr., Mgr., 263 construction and maintenance and past 14 years Chf. Engr. of International Paper Co.; has been in responsible charge of design and construction of over \$30 000 000 worth of (1) work, including dams, hydro-electric stations, paper and pulp mills, steam plants, etc. (Active practice 25.7 years: Prof. work 25.7: Res. Ch. 25: Design 25). Refers to C. M. Allen, A. S. Crane, W. J. Douglas, H. S. Ferguson, N. C. Grover, G. F. Hardy, A. Hazen, J. P. Hogan, E. Hutchins, E. Klapp, H. deB. Parsons, W. B. Parsons, A. T. Safford, E. H. Sargent, J. C. Smith.

WICKERHAM, PHILIP SHERIDAN—170 Brady St., Butler, Pa.—(Age 45. Born Sinking Spring, Ohio.) (B. S., Ohio Wesleyan Univ., 1902.)—1904 to 1905 (over 7 months) 264 Chairman, Rodman and Instrumentman, S. & W. R. R.: 1905 to 1906 (over 7 months) Field and Office Asst. with S. P. Baird, Portsmouth, Ohio, on city lots, subdivisions, (6) topographic surveys, mapping, drafting, computations, Inspector and Foreman on construction: 1906 to 1907 (6 months) Deputy, L. Jones, Surveyor, Scioto County, Ohio, surveys, bridge and culvert construction, drafting and office computations: 1907 to 1908 Res. Engr. in Chg. for S. P. Baird, Cons. Engr., Portsmouth, on construction of plant for Standard Brick Co., Charleston, W. Va. (over 9 months); operation of this plant, Production and Sales Depts. (over 2 months); various construction, sewers, paving, steam shovel work (about 4 months): 1909 to 1910 Special Engr. for Wm. McCurdy, Commr., Scioto County, relocation and construction of gravel roads (over 9 months), design and construction masonry and timber arches and bridges (over 7 months), investigations and reports (over 2 months): July to Nov. 1910 Constr. Engr. for L. E. Sturm Co., Columbus, Ohio, on piling and masonry structures on double-track reconstruction, N. & W. R. R., near Chillicothe, Ohio: Dec. 1910 to May 1913 Asst. Engr., Bureau of Public Works, Manila, Philippine Islands, on location and construction of hard surface roads (nearly 1 year), concrete building and bridge construction (over 9 months), investigations, reports and tentative designs for gravity water systems (over 2 months), special assignment to Surigao Province, Mindinao, to organize Eng. Dept. (over 7 months): May to Sept. 1913 traveling in Burma, India, Egypt, Holy Land and Europe, observing foreign engineering works and methods: Oct. 1913 to Dec. 1919 in private practice at Portsmouth, and in collaboration with S. P. Baird, Columbus, surveys, reports, tittle designs and estimates for development of mineral deposits for Bloom Furnace Co., York Portland Cement Co., and Carlyle-Labold Co., Portsmouth; location surveys for 22 miles extension of electric line for Portsmouth St., R. R. & Light Co. (over 9 months); highway location for Vinton County, Ohio (5 months); investigations, reports, expert testimony in various damage suits vs. City of Portsmouth, *et al.* (5 months); collaboration with S. P. Baird in development of city additions, comprising landscape engineering, steam shovel grading and design and construction of paving and sewer systems (2½ years); Capt. of Engrs. (nearly 9 months); Jan. 1920 to Dec. 1921 City Engr. for Piqua, Ohio, design and construction of paving and of collectors and main outfall sewer with provision for future installation of sewage treatment and designs for sewerage extensions: Jan. to Dec. 1922 Cons. Engr. for City of Sharon, Pa., on investigation, report, specifications, detailed design for complete sewage-disposal works: Jan. 1923 to date Cons. Engr. for City of Butler, Pa., and Commrs. of Butler Township, work similar to that at Sharon but more comprehensive to provide for adjacent communities beyond city limits (partial plans and report submitted separately). (Active practice 19.6 years: Sub-Prof. work 3.7: Prof. work 15.9: Res. Ch. 14: Design 5.8). Refers to S. P. Baird, H. D. Bruning, A. W. Dana, J. W. Graham, J. K. Harris, F. W. Jennings, C. Russell, C. L. Siebert, W. L. Stevenson.

WOOD, GUY SMITH—682 Academy St., New York City—(Age 35. Born Altona, N. Y.) (C. E., Rens. Pol. Inst., 1912.)—July 1912 to April 1916 Jun. Asst. and Jun. Engr., 265 New York State Public Service Comm., New York City, in charge of field party on preliminary and location surveys, and in charge of office during construction (reported

- (1) to Sec. Engr.): Oct. 1916 to May 1917 Asst. Engr., Interborough Rapid Transit Subway Constr. Co., New York City, computing final estimate on subway contract: May 1917 to Nov. 1918 Asst. Engr., Degnon Contr. Co., New York City, in charge of replacing underground structures, also subcontracts and work not covered by regular contract: Nov. 1918 to March 1919 Asst. Engr. with Ford, Bacon & Davis, New York City, in charge of field party on construction of manufacturing plant and housing development: June 1919 to date Res. Engr., International Paper Co., New York City, in charge of construction of boiler houses and paper mills, also layout and design of equipment and buildings. (Active practice 10.9 years: Sub-Prof. work 0.8: Prof. work 10.1: Res. Ch. 5.6: Design 0.6). Refers to J. A. A. Connelly, E. E. Halmos, E. Hutchins, W. F. Stevenson, L. R. Talbot.

WRIGHT, KENNETH CRAWFORD—Brigham City, Utah—(Age 33. Born Brigham City, Utah.) (B. S. in C. E., Utah State School of Mines and Eng., Univ. of Utah, 1915.)—266 May to Oct. 1915 Designer, Bridge Dept., and Jan. 1916 to Jan. 1922 State Road Agt. in charge of maintenance in Box Elder County, Utah State Road Comm.: May 1917 to (11) date Res. Engr., Utah State Road Comm.; Constr. Engr., 11 miles concrete pavement from Utah Hot Springs to Brigham City and 2 miles bituminous concrete pavement at Brigham City; Locating Engr., Utah Federal Aid Projects 14 and 63, Tremonton to Snowville (40 miles) and Corinne to Tremonton (15 miles); Designing and Constr. Engr., Utah Federal Aid Project 14, Sec. A (bituminous concrete pavement), Tremonton City, Utah, and pavement and storm sewer, Garland City; Engr. in charge of location, design and Constr. Engr., Tremonton to Garland highway 2½ miles pavement; Locating and Constr. Engr., Utah Federal Aid Projects, No. 38-A, Brigham City to Corinne (45 miles concrete pavement); No. 33, Wellsville, Utah, to Cache-Box Elder County line (7 miles, macadam), and No. 58, Mantua to Cache-Box Elder County line (4 miles, macadam): Cons. Engr., municipal water-works systems, at Mantua, Utah (Jan. to Sept. 1921) and Portage, Utah. (Jan. to Dec. 1923). (Active practice 8.5 years: Res. Ch. 8: Design 5.2). Refers to E. S. Borgquist, O. Bundy, H. S. Kerr, R. B. Ketchum, B. W. Matteson, H. C. Means, G. B. Stone.

WURTS, CHARLES STEWART, Jr.—926 Spruce St., Philadelphia, Pa.—(Age 22. Born 267 Philadelphia, Pa.) (C. E., Princeton Univ., 1923.)—Refers to E. Y. Allen, G. E. Beggs, (4) F. H. Constant, C. H. Higgins, C. Penrose.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

BINGHAM, CLARENCE ARMINER, Assoc. M. Am. Soc. C. E.—City Hall, Lima, Ohio—(elected Junior June 5, 1906; Assoc. M. Jan. 4, 1910.) (Age 38. Born Elizabeth, N. J.) 268 —June 1902 to April 1906 Rodman, Transitman, Draftsman and Asst. Engr. with City of Elizabeth, N. J., last 2 years in charge of paving plans, estimates, river improvement (9) and surveys, etc.: April to Dec. 1906 Draftsman, Lehigh Valley R. R.: Dec. 1906 to April 1908 Res. Engr. for T. Chalkley Hatton, Wilmington, Del., on sewer construction (\$40 000) at Mt. Carmel, Pa., and part of Charleston, W. Va., sewer (\$150 000), and on design of various other works: May 1908 to June 1912 City Engr. and Supt. of Public Works, Carlisle, Pa., in charge of annual expenditure of about \$100 000; also private work as Civ. Engr. and Surveyor: June 1912 to Dec. 1913 member of firm, Martin & Bingham, building sewage-disposal plant for Pennsylvania State Coll. (\$120 000); also acting as Cons. Engr. on paving, sewers, water-works and bridges for Chambersburg, Mechanicsburg, Waynesboro, Cumberland County, Gettysburg, Shippensburg, Newport, etc. (total about \$700 000): Dec. 1913 to Dec. 1914 Asst. City Engr. of Elizabeth, in charge of paving: Dec. 1914 to Dec. 1917 City Mgr. of Norwood, Mass., in full charge of administration of \$500 000 annual budget including all public works, and municipal water-works and electric lighting plant: Jan. 1918 to Jan. 1920 City Mgr. of Waltham, Mass., in complete charge of budget of \$1 200 000 annually; Chf. Administrator of Depts. of Public Safety, Public Works, Public Welfare, Health and Finance: Jan. 1920 to Jan. 1922 City Mgr. of Watertown, N. Y., in charge of same departments with annual expenditure of \$1 500 000: Jan. 1922 to date City Mgr. of Lima, in charge of similar department with annual budget of \$1 700 000 and additional bond issue work drawing to a close of \$2 000 000 on intercepting and relief sewers, pump stations, etc., \$1 300 000 street paving and \$375 000 water extensions. (Active practice 21.5 years: Sub-Prof. work 2: Prof. work 19.5: Res. Ch. 15.6: Design 3.9). Refers to E. A. Beck, T. E. Collins, G. W. Fuller, T. C. Hatton, G. A. Johnson, W. H. Luster, J. R. McClintock, H. M. Walte.

BORGQUIST, ERASMUS SWAN, Assoc. M. Am. Soc. C. E.—1181 S. 10th E, Salt Lake City, Utah—(elected Nov. 9, 1920.) (Age 36. Born Salt Lake City, Utah.) (B. S. in Civ. Eng., 1911, and C. E., 1917, Univ. of Utah.)—July to Nov. 1908 and July to Oct. 1909 Chairman, Public Land Surveys, with John R. Stewart, Provo, Utah: July to Oct. 1910 (11) Rodman and Chainman, and July 1911 to July 1913 Jun. Engr., Transitman, Levelman, Topographer and Hydrographer, and office design, U. S. Reclamation Service: July 1913 to July 1915 Asst. Field Engr., Eng. Dept., State of Utah, on canal location, operation and general office work: July 1915 to July 1916 Water Commr. of waters of Uintah Basin under direction of Utah State Engr. in charge of distribution of irrigation waters of Lake Fork and Uintah Rivers: July 1916 to Dec. 1917 Federal Court Water Commr. under direction of U. S. Dist. Court having charge of distribution of water of Uintah, Whiterocks and Lake Fork Rivers on 100 000 acres of irrigated lands in Uintah Basin: Dec. 1917 to April 1919 1st Lieut. of Engrs., U. S. Army, in France with 521st Engrs., as Operating Engr. on narrow-gauge railroad line on hospital construction at Mesves, France: April 1919 to July 1920 Res. Engr. on Piute Dam for Utah Board Land Commrs., designed concrete spillway and outlet gate tower, and outlet tunnel, in charge of construction work in field on steam-shovel excavation, drilling and blasting shaft and concrete work: July 1920 to Aug. 1921 Res. Engr. on highway construction on Utah Federal Aid Project No. 4 (32 miles grading, part gravel surface and numerous concrete bridges and culverts): Aug. to Dec. 1921 Topographer on drainage work for T. H. Humphreys at Logan, Utah: Dec. 1921 to April 1922 Designing Engr. on Kittitas Reclamation Dist., at Ellensburg, Wash., under direction of J. R. Sherman (work done in co-operation with U. S. Reclamation Service): April 1922 to Sept. 1923 Res. Engr. on concrete road construction with Utah State Road Comm. on Federal Aid Projects Nos. 24 and 39: Sept. 1923 to date Instructor in Civ. Eng., Univ. of Utah, in charge of courses in hydraulics, water supply, specifications, and road laboratory work for senior engineering students. (Active practice 13.3 years: Sub-Prof. work 0.9: Prof. work 12.4: Res. Ch. 6.9: Design 2.2). Refers to H. L. Baldwin, H. S. Kerr, R. B. Ketchum, H. S. Kleinschmidt, J. L. Lytel, B. W. Matteson, H. C. Means.

BOSARD, RALPH, Assoc. M. Am. Soc. C. E.—622 Goodwyn Inst. Bldg., Memphis, Tenn.—(elected Jan. 14, 1918.) (Age 34. Born Indianapolis, Ind.) (B. S. in C. E., Purdue Univ., 1913.)—May to July 1913 Rodman on hydraulic survey, Miami Conservancy Dist.: July 1913 to date with Morgan Eng. Co., Memphis, Tenn., until July 1914 (10) as Constr. Inspector on three drainage projects in Arkansas and Mississippi (90 miles of ditches, cost \$295 000); spare time in office as Computer; since July 1914 Constr. Engr. in direct charge of following work: Overcup (Arkansas) and Reeds Creek (Tennessee) Drainage Dists. (45½ miles of channels, total cost \$142 000), in direct charge of construction in field; Middle Fork and Spring Creek Drainage and Levee Dist., Weakley County, Tenn. (9 miles channel, 22 miles levees, 430 acres of floodway clearing, total cost \$145 000), direct charge of construction in field; Drainage Dists. Nos. 7 and 8, Crittenden County, Ark. (over 81 miles of ditches and 5 miles of channel clearing, total cost \$283 000); in former classified lands for assessment of benefits, had direct charge of construction in field, and for 5 years after completion had charge of maintenance operations, and in latter had charge of field location surveys and direct charge of construction; Grassy Lake and Tyronza Drainage Dist. No. 9, Mississippi County, Ark. (300 miles of channels and levees, total cost \$1 200 000); took charge in field of construction work in Nov. 1915 when work was about four-fifths complete, and since 1916 has had charge of all maintenance operations (about \$10 000 annually); also had direct charge of field surveys and assisted in design of drainage work for Sub-Dist. 3 of same district, and for Sub-Dist. No. 1 of Carson Lake Drainage Dist. No. 8, Mississippi County, Ark.; and past 4 years in charge of maintenance operations in latter district (expenditure about \$5 000 annually); Index-Sulphur and McKinney Bayou Drainage Dists., Miller County, Ark. (67 miles levees, 120½ miles ditches, estimated cost over \$2 000 000), covered districts in field, decided on location of ditch system and graded lands for assessment of benefits; Arkabutla Creek Drainage Dist., Tate County, Miss. (21½ miles of ditches, total cost \$97 000), assisted Commrs. in fixing benefit assessment and had direct charge in field of construction; Indian Creek Drainage Dist. No. 1, in Mississippi, with two sub-districts (23 miles levees, 78 miles ditches, total cost \$430 000), had direct charge in field of construction and during past 5 years of maintenance, its main levee (13 miles long, cost \$80 000), at present under reconstruction, has had charge of all engineering work on this, including design of new levee section; Lake Cormorant Drainage Dist. in Mississippi (87 miles of channel, cost \$750 000), had direct charge of location surveys and construction,

designed and constructed basin for controlling small sand bearing creek (cost \$10 000); Drainage Dist. No. 10, Scott County, and No. 38, New Madrid County, Mo. (63 miles of reconstructed channels, total cost \$682 000), had direct charge of all engineering work on these projects, including field surveys, design of system, assessment of damages and construction on former; final surveys and design of system now being made for latter; Inter-River Drainage Dist., Butler County, Mo., total cost \$2 000 000, checked in field classification of lands for assessment of benefits and assisted in adjudication of same; has made a number of miscellaneous investigations and reports and conducted experiments to develop roughness factor in velocity formula for flow of water in open channels; served as expert witness in court in a large number of instances. (Active practice 10.7 years: Res. Ch. 9.5: Design 4.8). Refers to W. E. Ayres, O. G. Baxter, W. K. Hatt, L. L. Hiding, A. E. Morgan, R. L. Sackett, N. H. Sayford, C. E. Shearer.

- BROWN, ROBERT KING, Assoc. M. Am. Soc. C. E.—30 I St., Salt Lake City, Utah—(elected June 7, 1893.) (Age 59. Born Cincinnati, Ohio.) (C. E., Rens. Pol. Inst. 1888.)—Oct. 1880 to Sept. 1884 Chairman, Rodman, Instrumentman and Draftsman with Anderson & Hobby, Civ. Engrs. and Surveyors, Cincinnati, Ohio: July 1888 to 1897 (11) with Pennsylvania Lines West of Pittsburgh, 5 years as Asst. on Engr. Corps at various places, 2 years Asst. Engr. M. of W., at Cincinnati and Pittsburgh, and 2 years Engr. M. of W. (Div. Engr.) at Richmond, Ind.: summer 1897 to Feb. 1902 Supt. of Columbus Constr. Co. and Casparis Stone Co., and Asst. Supt. of Pittsburgh Plate Glass Co.: March 1902 to May 1919 with Los Angeles & Salt Lake R. R. Co., 14 years as Div. Engr., at Los Angeles and Salt Lake City; 2 years Engr. of maintenance for entire line, at Los Angeles; and 1 year Div. Engr., at Salt Lake City: May 1919 to date Supt. and Chf. Engr., Salt Lake & Utah R. R. Co.: at various times has had responsibility for designing branch lines, reconstructing main lines, bridges, buildings, terminals, water supply, etc. (Active practice 39.4 years: Sub-Prof. work 9: Prof. work 30.4: Res. Ch. 26.4). Refers to W. R. Armstrong, W. K. Barnard, C. K. Bowen, S. Q. Cannon, R. A. Hart, R. B. Ketchum, H. S. Kleinschmidt, H. C. Means, M. M. Murtaugh, M. Sullivan.
- COHEN, JACOB XENAB, Assoc. M. Am. Soc. C. E.—104 City Hall, Syracuse, N. Y.—(elected Junior Oct. 3, 1911; Assoc. M. April 17, 1917.) (Age 34. Born New York City.) 272 (B. S. in C. E., 1911, and C. E., 1914, Cooper Union.)—May to Dec. 1906 Draftsman, Tuttle & Bailey Mfg. Co., New York City, detailing mechanical equipment for metal (3) working shops: Jan. to May 1907 Draftsman, Arbuckle Sugar Refining Co., New York City, detailing mechanical equipment for metal working shops: May 1907 to July 1911 Draftsman, later Asst. Engr., on reports, plans and specifications for sewage-treatment works, water purification works and refuse incinerators for over sixty municipalities and public institutions in the United States; also Res. Engr. on construction with Hering & Fuller, New York City: July 1911 to May 1915 Asst. Engr., with Hering & Gregory, Cons. Engrs., New York City, on plans and specifications, also preliminary investigations and reports on sewerage and sewage-disposal works for about twenty-five municipalities and public institutions in United States; also Res. Engr. on construction of sewage-disposal works: May 1915 to date Designing Engr., Syracuse (N. Y.) Intercepting Sewer Board (except Aug. 1918 to July 1919 on war leave as Office Engr., Constr. Q. M., Camp Knox, U. S. Army, in charge of office engineering organization on plans for construction of artillery cantonment, including highways, railroads, water supply, sewage disposal and other utilities, etc.), until Aug. 1918 on studies, investigations, reports and plans for sewage treatment works for Syracuse; also on plans and specifications for extension, intercepting sewer system and improvement of city water courses for flood protection; and since July 1919 on plans and specifications for sewers and sewage disposal works for Syracuse; also in charge of sewage testing station operations and studies: since July 1919 also Cons. Engr. for various institutions and municipalities in Central New York on water-supply and sewage-treatment problems. (Active practice 17.6 years: Sub-Prof. work 2: Prof. work 15.6: Res. Ch. 12.6: Design 12.9). Refers to H. C. Allen, H. B. Brewster, G. W. Fuller, J. K. Glessey, G. D. Holmes, E. G. Manahan, I. S. Walker.
- CRANE, ERNEST BUCHANAN, Assoc. M. Am. Soc. C. E.—618 White Bldg., Seattle, Wash.—(elected Sept. 2, 1914.) (Age 42. Born Dexter, Iowa.) (B. S. in C. E., 1904, and 273 C. E., 1910, Univ. of Iowa.)—July to Oct. 1903 Topographer, Western Iowa Interurban: June to Sept. 1904 Apprentice, Illinois Steel Co., North Works, Chicago, Ill.: Sept. 1904 (12) to Feb. 1905 Draftsman, Chicago, Burlington & Quincy R. R.: Feb. to Nov. 1905

Draftsman, Interurban R. R., Des Moines, Iowa: Nov. 1905 to date with Chicago, Milwaukee & St. Paul Ry. Co., as follows: Nov. 1905 to March 1906 Instrumentman; March to Nov. 1906 Res. Engr. at Sumner, Wash.; Nov. 1906 to Sept. 1909 Terminal Engr., in charge of construction, local freight and passenger and ocean terminals, Tacoma, Wash.; Sept. 1909 to Sept. 1911 Asst. Engr. M. of W. and completion of construction, Coast Div.; Sept. 1911 to April 1915 Asst. Engr. M. of W., Lines West of Avery, Idaho; April to Dec. 1915 Pilot Engr., Valuation Dept.; Dec. 1915 to July 1918 Asst. Engr., Valuation Dept., at Chicago, Ill.; July 1918 to Sept. 1920 Asst. Valuation Engr., Chicago; Sept. 1920 to July 1922 Engr. Auditor, Chicago, capital expenditures and reports under Valuation Order No. 3; since July 1922 Prin. Asst. Engr., Seattle, Wash. (Active practice 19.8 years: Res. Ch. 17.9: Design 15.4). Refers to F. H. Fowler, J. M. Gilman, A. G. Holt, C. F. Loweth, R. J. Middleton, C. A. W. Musson, W. H. Penfield, J. F. Pinson.

DELEUW, CHARLES EDMUND, Assoc. M. Am. Soc. C. E.—111 W. Washington St. Chicago, Ill.—(elected Junior Aug. 31, 1915; Assoc. M. June 16, 1919.) (Age 32. Born Jacksonville, Ill.) (B. S. in C. E., 1912, and C. E., 1916, Univ. of Ill.)—June to Sept. 1909 Rodman with Christie & Lowe, Beardstown, Ill., on construction of Coal Creek Drainage (8) and Levee Dist.: June to Sept. 1910 Chairman, Chicago Great Western R. R.: June to Sept. 1911 Rodman, Illinois Traction System, Decatur, Ill.: June to Aug. 1912 Levelman, C. G. W. R. R., in charge of party spiraling curves and giving grades on 25 miles of new line, also grade reduction, widening roadbed and laying new steel: Aug. to Nov. 1912 Transitman, Chicago, Milwaukee & St. Paul Ry.: Nov. 1912 to June 1914 Res. Engr., Central Eng. Bureau, Chicago, on design and construction of water-works, sewers and pavements: June 1914 to Jan. 1917 Asst. Engr. with Ewing & Allen, Cons. Engrs., Chicago, on construction of pavements, sewerage systems and water-works; also in charge of designs for pavements (\$500 000), sewers (\$225 000), drainage districts and water-works: Jan. to May 1917 and Jan. 1919 to Jan. 1920 member of firm, Gates & DeLeuw, Chicago, on design and construction of various municipal works and drainage districts (\$500 000): May 1917 to Jan. 1919 1st Lieut. and Capt., 4th Engrs., 4th Div., U. S. Army, including 8 months in France, in Alsne-Marne, St. Mihiel and Meuse-Argonne campaigns: Jan. 1920 to date member of firm Kelker, DeLeuw & Co., Engrs., Chicago, design and construction of sewerage works, water-works and pavement at Lockport, Carrollton, Libertyville, Breese, Riverside, North Riverside and Taylorville, Ill. (total approx. \$1 200 000); also Asst. Engr. on Staff of Local Transportation Committee of Chicago City Council on preparation of Report on Unified Transportation System for Chicago; also Engr. for various drainage districts (\$1 000 000). (Active practice 11.7 years: Sub-Prof. work 0.3: Prof. work 11.4: Res. Ch. 10.6: Design 6.5). Refers to A. H. Acher, W. H. Allen, I. O. Baker, R. F. Kelker, Jr., E. F. Mail, J. J. Morrow, R. I. Randolph.

ESTES, LEWIS ALDEN, Assoc. M. Am. Soc. C. E.—241 E. Ohio St., Indianapolis, Ind.—(elected Junior June 30, 1911; Assoc. M. Jan. 14, 1918.) (Age 35. Born Ann Arbor, Mich.) (A. B., 1908, and B. S. in C. E., 1910, Univ. of Mich.)—July 1910 to date with Truscon Steel Co. as follows: July 1910 to Oct. 1912 Asst. to Mgr., Foreign Trade Dept., Detroit, investigated behavior of concrete in earthquake districts; Oct. 1912 to May 1914 Res. Engr. for the Company (with American Trading Co., Rio de Janeiro, Brazil), prepared designs and furnished materials for concrete structures; introduced Insley equipment; May 1914 to Jan. 1915 Asst. to Mgr. of Sales, at Youngstown, Ohio: Jan. 1915 to Oct. 1921 Branch Mgr., Boston Office, prepared designs and detailed drawings for all classes of reinforced concrete structures; had entire responsibility of organizing and maintaining Eng. Dept.; since Oct. 1921 Branch Mgr., Indianapolis Office, prepared structural drawings for architects on a large number and wide variety of structures; responsibility same as from Jan. 1915 to Oct. 1921. (Active practice 13.5 years: Sub-Prof. work 2.8: Prof. work 10.6: Res. Ch. 9: Design 1.5). Refers to C. M. Geupel, W. H. Insley, O. W. Irwin, J. Kahn, L. V. Sheridan, R. D. Snodgrass, J. R. Worcester.

GILMAN, JAMES MOSELEY, Assoc. M. Am. Soc. C. E.—618 White Bldg., Seattle, Wash.—(elected March 14, 1916.) (Age 42. Born Madison, Wis.) (B. S., Univ. of Wis., 1904.) —June to Sept. 1901 Engr. for Park Board, Madison, Wis.: Sept. 1902 to Feb. 1903 Concrete Inspector and Rodman, Louisville & Nashville Ry. Co., at Knoxville, Tenn. (12) June to Sept. 1903 Draftsman, Wisconsin State Ry. Comm.: July 1904 to Jan. 1905 Testing Engr. with R. A. Cummings: March 1905 to date with Chicago, Milwaukee &

St. Paul Ry. Co. as follows: March to Sept. 1905 Structural Draftsman; Sept. 1905 to Jan. 1906 Instrumentman; Jan. to July 1906 Reinforced Concrete Designer, at Chicago; July 1906 to July 1909 Asst. Engr. in office of Engr. of Masonry Constr. at Chicago; July 1909 to May 1912 Chf. Structural Draftsman, at Seattle; May 1912 to Sept. 1918 Asst. Engr. at Seattle; since Sept. 1918 Structural Engr. at Seattle. (Active practice 19.7 years: Res. Ch. 14.5: Design 15). Refers to E. B. Crahe, T. L. D. Hadwen, A. G. Holt, C. F. Loweth, R. J. Middleton, C. A. W. Musson, W. H. Penfield, J. F. Pinson.

McCLUSKEY, WILLIAM OLIVER, Jr., Assoc. M. Am. Soc. C. E.—37 Walnut Ave., Wheeling, W. Va.—(elected May 15, 1917.) (Age 34. Born Wheeling, W. Va.) (B. S. in C. E., 277 Univ. of Pittsburgh, 1912.)—March to Sept. 1911 Chairman, Univ. of Pittsburgh campus survey; Douglas & McKnight, Pittsburgh, Pa., street surveys; F. G. Ross, Pittsburgh, surveys: June 1912 to June 1913 Asst. to Engr., The Foundation Co., New York City, Draftsman, Instrumentman, Estimator, Timekeeper, Cost Clerk and Material Clerk: June to Sept. 1913 Asst. City Engr. of Wheeling, W. Va., Instrumentman, Draftsman and Estimator on pavements, sewers and bridges: Sept. 1913 to Jan. 1917 Inspector, U. S. War Dept., Wheeling Dist. Office, Dams Nos. 12 and 14, Ohio River at Warwood, W. Va., and Woodland, W. Va., Inspector, Draftsman, Instrumentman, Res. Engr. in charge: Jan. 1917 to June 1921 County Road Engr., Board of Commrs., Ohio County, W. Va., in responsible charge of design, construction and maintenance of roads and bridges: June 1921 to date Asst. Div. Engr., Third Div., State Road Comm. of West Virginia, responsible charge of design, construction and maintenance of roads; at present in charge of design and construction of roads and construction of bridges. (Active practice 11.6 years: Sub-Prof. work 3.6: Prof. work 8: Res. Ch. 8: Design 7). Refers to W. S. Downs, F. B. Duls, C. P. Fortney, G. H. Hill, H. E. Snyder.

MERRILL, WALTER SCOTT, Assoc. M. Am. Soc. C. E.—989 Summit Ave., New York City—(elected Dec. 4, 1922.) (Age 38. Born Harmony, Me.) (B. S. in Civ. Eng., 278 Univ. of Me., 1910.)—Aug. 1910 to April 1911 Rodman, Maine Central R. R., acted as Instrumentman and Inspector: April 1911 to March 1913 Surveyman, U. S. Reclamation Service, Ft. Shaw, Mont., acted as Rodman, Chainman, Instrumentman and Planetableman on surveys; also on hydrographic work and short time in office: March 1913 to March 1914 Draftsman, Instrumentman in charge of party, Inspector and Asst. Engr. with Ford, Bacon & Davis at Valier, Mont., also Hydrographer, surveys, and office work and construction on irrigation project, included work on 160-ft. rock-fill dam and on long and high steel flume: May to Sept. 1914 Inspector, Bridge Dept., Boston & Albany R. R., Boston, Mass., in office of Div. Engr. at Springfield, and in field in charge of erection of steel and concrete bridges: Sept. 1914 to June 1916 Instructor in Civ. Eng., Rhode Island State Coll., Kingston, R. I., in responsible charge of large amount of lecture, field, design and test work: summer 1915 graduate student, Cornell Univ.: June to Dec. 1916 Designer, reinforced concrete, Westinghouse, Church, Kerr & Co., New York City, design of foundations, walls, tanks, stacks, etc., for industrial and war plants: Dec. 1916 Designer of reinforced concrete, with H. S. Ferguson, Cons. Engr., New York City: Jan. 1917 to date Designer, Field Engr., Chf. of Design Sec. (hydraulic) and Asst. Hydr. Engr., Elec. Bond & Share Co., New York City; in office as Designer in Hydr. Div., studies, estimates and designs for hydro-electric developments and designs of foundations and hydraulic features of steam-electric plants; 4 months in field investigating four western rivers for power developments, 2 months in field office on survey for and design of layout of government ammunition loading plant, Amatol, N. J. (1918); 1½ years in field and office investigating, studying and reporting on water and coal resources of Pennsylvania anthracite and bituminous coal regions east of Johnstown with view to location of mouth-of-mine and super steam-electric plants; in responsible charge of section of drafting room (hydraulic and foundation) and later Asst. Hydr. Engr. in charge of preparation of specifications and designs and selection of material and equipment; at present directing preconstruction surveys and investigations and preparation of designs for large, high head hydro-electric development. (Active practice 13.4 years: Sub-Prof. work 8.1: Prof. work 5.2: Res. Ch. 5.2: Design 6.2). Refers to H. S. Boardman, A. C. Clogher, D. W. Cole, V. F. Hammel, M. O. Leighton, W. E. Swift.

ORR, JAMES LAWRENCE, Assoc. M. Am. Soc. C. E.—P. O. Box 187, Norton, Va.—(elected Aug. 9, 1920.) (Age 35. Born Coltersville, Ill.) (C. E., Lehigh Univ., 1914.)—279 Aug. 1914 to June 1916 Draftsman, M. of W. Dept., Lehigh & New England R. R., at South Bethlehem, Pa., mapping, computations, design and details of small structures,

- (5) retaining walls, etc.: June 1916 to Dec. 1917 Draftsman, Constr., Eng. Dept., Bethlehem Steel Co., South Bethlehem, detailing steel and foundations; designing, detailing, and checking mill buildings, foundations, track layouts, walls, pits; responsible charge of design of projectile shop No. 2: Jan. to July 1918 Designer, J. G. White Eng. Corporation, designing and checking mill buildings and approving steel details; design of steel foundation for 60 000-kw. turbine at Nitrate Plant No. 2; July to Nov. 1918 Asst. Engr. in charge of field office at Muscle Shoals, Ala., same company: Dec. 1918 to June 1919 Squad Boss, R. H. Beaumont Co., Philadelphia, in charge of design of conveying machinery and supporting structures: Nov. 1919 to Dec. 1920 Designer, Constr. Dept., Henry L. Doherty Co., New York, in charge of steel design for power houses: June 1921 to July 1922 Bridge Designer, Interstate R. R., Norton, Va.: July 1922 to date Mgr., M. O. & W. Eng. Corporation, Norton, Va., in charge of civil, mechanical and mining engineering. (Active practice 8.5 years: Res. Ch. 5: Design 2.5). Refers to C. W. Haasis, S. R. Jones, J. T. Kiernan, F. Kurtz, C. A. McCollough, F. P. McKibben, R. N. Whitcomb.

SQUIRE, EDWARD JACOB, Assoc. M. Am. Soc. C. E.—91 Woodruff Ave., Brooklyn, N. Y.—(elected Oct. 8, 1918.) (Age 37. Born Watertown, N. Y.) (C. E., Pol. Inst. of Brooklyn, 1910;

280 M. S., N. Y. Univ., 1917.)—June to Dec. 1906 Computer and Draftsman for Francis Broadnax, Cons. Engr., New York City: Dec. 1906 to March 1907 Structural Draftsman,

- (1) Empire Bridge Co., Brooklyn, detailing beams and columns for steel building construction: March to Sept. 1907 Structural Draftsman for John Pirkle Iron Works, Brooklyn, detailing structural steel: June to Sept. 1909 Asst. Supt., sewer construction, Long Island Contracting Co., Long Island City: June to Sept. 1910 Structural Draftsman with H. C. Hearn, Cons. Engr., New York City, steel construction, details and checking: Sept. 1910 to Oct. 1918 Instructor in, and Oct. 1918 to date Asst. Prof. of, Civ. Eng., Polytechnic Inst. of Brooklyn: June to Sept. 1911 structural drafting and checking, R. E. Norton Const. Co., New York City: June to Oct. 1913 valuation of sewerage systems in New York City, Borough President's Office, Manhattan: June to Sept. 1914 designing underpinning for buildings along subway routes, Public Service Comm., New York City: June to Sept. 1915 and part of time during year with C. W. Hudson, New York City, computing and drafting, stresses in concrete arches: June to Sept. 1916 Structural Designer for Gibbs & Hill, Cons., Engrs., New York City, design of transmission towers and catenary supports for New York Connecting R. R.: June to Aug. 1918 Computer, Scientific Dept., Brooklyn Navy Yard: Aug. to Dec. 1918 (part of time after Oct.) structural drafting and checking on steel ships, Carolina Shipbuilding Corporation: June to Dec. 1919 (part of time after Oct.) design and mechanical installations of dry-dock, and June to Aug. 1920 on design of asphalt tanks for steel ships, also report on same, Eads Johnson, Cons. Engr., New York City: Oct. to Dec. 1920 prepared plans for dry-dock for Walter Thompson, New York City: June to Aug. 1921 Estimator with Thompson-Starrett & Co., New York City, steel and concrete design and estimates: Sept. 1921 report on collapse of lockers, and April 1922 report on safety of construction of a building, for Wm. Butler, New York City: March 1922 investigation of strength of building and design of supports and machinery bases for Stephen Ransom, New York City: June to Oct. 1922 Estimator on building construction with George P. Squire, Brooklyn: Nov. 1922 report on quality of material used in a theatre that failed during construction for Edw. B. Thatcher, Brooklyn: June to Oct. 1923 Asst. Structural Engr. for Gibbs & Hill, New York City, estimating, design and reports on transmission lines and towers for Virginian R. R.: Oct. to Dec. 1923 design and structural drawings for electric locomotive for Transit Equipment Co., New York City. (Active practice 13 years: Prof. work 13: Res. Ch. 6.8: Design 2.8). Refers to J. P. Carlin, H. R. Codwise, H. P. Hammond, C. W. Hudson, E. M. Van Norden.

WILLIAMSON, LEE HOOMES, Assoc. M. Am. Soc. C. E.—510 National Bank Bldg., Charlottesville, Va.—(elected Junior Oct. 9, 1917; Assoc. M. Oct. 14, 1919.) (Age 32.

281 Born Montgomery, Ala.)—June to Sept. 1911 Rodman and Levelman, Isthmian Canal Comm., Canal Zone, Panama: June 1912 to Sept. 1913 Transltman and Asst. Engr.,

- (5) duPont Powder Co.; Chf. of Party on preliminary and location surveys; Asst. Engr. on construction of dynamite and smokeless powder plants, in charge of construction of powder line and acid plant: March to June 1914 and Oct. 1914 to April 1916 Instructor in Civ. Eng., Univ. of Virginia, Charlottesville, Va.: June to Oct. 1914 surveys, design of minor structures and estimates for private parties: June 1916 to April 1918 with Braden Copper Co., Rancagua, Chile, Transltman, power canal surveys; Chf. of Party, railway preliminary and location; Asst. Engr. in charge of surveys, reports, field esti-

mates and designs for 10 000-ton copper smelter, flume line and tunnels, connecting railway, water supply investigation and construction plant; Asst. Supt. in charge of tunnel operations, smelter excavation and railroad construction; Supt. of Constr. in charge of construction and design of construction plant for this work; June 1918 to April 1919 Lieut. of Engrs., U. S. Army, on construction work with D. of C. and F., A. E. F.: April to June 1919 Instructor in Civ. and R. R. Eng., Univ. of Virginia; June 1919 to June 1921 Constr. Engr., The Texas Co., in charge of design and construction of terminals in Porto Rico, Brazil, Belgium and Holland; June 1921 to date in private practice, general and municipal work, including design and supervision of water systems for Charlottesville (\$650 000) and Staunton (\$700 000), Va., in association with Fuller & McClintock, reported on and designed various smaller plants and proposed developments. (Active practice 10.7 years: Prof. work 10.7: Res. Ch. 7.6: Design 6.2). Refers to E. W. Baldwin, B. A. Bennett, W. F. Day, G. W. Fuller, E. G. Manahan, J. F. Richardson, J. R. Slade, W. W. Stevens.

WOOD, VAUGHN, Assoc. M. Am. Soc. C. E.—422 American Bank Bldg., Los Angeles, Cal. —(elected July 6, 1920.) (Age 36. Born Burlington, Kans.)—Student, Colorado Coll. 282 (fall term 1906-1907), and Univ. of Kansas (spring term 1906 to 1909, and 1911-1912): Jan. to July 1910 Chainman and Draftsman, Atchison, Topeka & Santa Fe Ry.: (11) Aug. 1910 to Aug. 1911 Draftsman and Surveyor on construction, location and some design, Los Angeles Aqueduct: July-Aug. 1912 Draftsman, City Engr.'s office, Los Angeles: Sept. 1912-Jan. 1913 Transitman, Stone & Webster Eng. Corporation: Feb. to Dec. 1913 with John T. Rice in practice of civil and irrigation engineering, Imperial, Cal., location and construction of canals, design and construction of structures: Jan. to July 1914 Engr., North End Water Co., Brawley, Cal., in charge of location, design and construction of canals and structures, also laid out surface drainage system to cover 25 000 acres: July to Dec. 1914 Jun. Engr. in charge of field party on hydraulic investigations, Los Angeles County Flood Control: Dec. 1914 to April 1915 Engr., Imperial Valley Farm Lands Association, Calipatria, Cal., in charge of street improvements and construction and operation of water system: May 1915 to April 1916 Draftsman, Los Angeles Harbor Dept., some design: April to June 1916 Leveler, Missouri, Kansas & Texas Ry.: July to Nov. 1916 Res. Engr. in charge of construction of concrete pavement, Los Angeles County Road Dept.: Nov. 1916 to March 1917 Asst. Engr., Waterford (Cal.) Irrigation Dist., in charge of design, location and construction of canals and canal structures: April to July 1917 Inspector, Stanislaus County Highway Comm., Modesto, Cal., in charge of concrete highway construction: July to Sept. 1917 Tunnel Foreman in charge of tunnel excavation, Pacific Gas & Elec. Corporation: Oct. 1917-Feb. 1923 with Imperial Irrigation Dist., until Jan. 1921 as Asst. Engr. and Asst. Drainage Engr. in charge of field surveys, canal locations, hydraulic investigations, right-of-way surveys, construction of canals (total cost \$175 000) and levees (cost \$50 000), all investigation, surveys, and some inspection of timber and concrete structures (cost over \$300 000); then Asst. Drainage Engr. in charge of comprehensive investigations of ground water conditions, classification of damaged lands, stratification and topography over 400 000 acres of irrigated land; prepared report on same outlining general scheme of drainage, location of 85 miles of deep drains, started construction of same; also conferred on design of structures going with drainage scheme, prepared technical and hydraulic data and gave expert testimony in seepage damage suits involving \$225 000 worth of claims: March 1923 to date in private practice at Los Angeles, designed \$200 000 of streets and sewers and supervised construction of \$75 000 worth of street improvements. (Active practice 13 years: Res. Ch. 10.1: Design 3.2). Refers to A. R. Arledge, J. H. Childs, P. W. Knights, J. H. Payne, F. D. Pyle, J. T. Rice, J. E. Rockhold, S. L. Rothery, J. A. Trudeau.

FROM THE GRADE OF JUNIOR

ALVAREZ DE URRUTIA, ARMANDO MANUEL, JUN. AM. SOC. C. E.—Trinidad 24, Cerro, Havana, Cuba—(elected Jan. 19, 1920.) (Age 27. Born Remedios, Cuba.) (B. S. in 283 C. E., 1918, and C. E., 1920, Villanova Coll.; C. E., Havana Univ., 1920.)—June to Sept. 1916 Rodman, Philadelphia & Reading R. R.: June to Aug. 1917 Concrete Foreman with Deeds & Derham, Contrs., construction of 3-span concrete arch bridge to substitute viaduct near Allentown, Pa., for P. & R. R. R.: Aug. to Sept. 1917 Concrete Foreman with Babcock & Wilcox, foundations for new machine shop at Bayonne, N. J.: June to July 1918 Rodman, Pennsylvania R. R. Co., Draftsman in office: Aug. 1918 to Dec. 1920 Eng. Draftsman and Field Engr., Snare & Triest Co., Gen. Contrs., New

York and Havana, office work mostly on concrete detailing, estimating and field work on location of bridges, piers, wharves and house construction: Jan. 1921 to date Asst. Engr., Frederick Snare Corporation (formerly Snare & Triest Co.), Contr. Engrs., New York City and Havana, designing and construction engineering superintendence and inspection in Havana office; design of concrete and steel construction for bridges, buildings, piers and warehouses; estimating and inspection during construction of five residences (\$50 000 to \$200 000): latter part of 1923 also acted as Cons. Engr. on design of steel shed and marginal wharf for Gen. Sugar Co., steel warehouse for Matanzas, Cuba, Munson Steam Ship Lines, steel shed and retaining wall for garage, and Appraiser in legal cases. (Active practice 6.1 years: Sub-Prof. work 2.6: Prof. work 3.5: Res. Ch. 3.5: Design 3.5). Refers to E. R. Akers, R. H. Cady, C. C. Fitzgerald, F. J. Gaston, A. S. Hobby, G. H. Nolan, A. C. Pradas de la Torre, G. P. Seeley, Jr., R. S. Webster.

BORSTELMANN, LOUIS JOHN, JUN. AM. Soc. C. E.—238 Painter Ave., Greensburg, Pa.—(elected Nov. 25, 1919.) (Age 30. Born Brooklyn, N. Y.) (B. Sc. in Civ. Eng., 284 Cooper Union, 1916.)—Oct. 1912 to July 1917 Jun. Asst. Engr., Public Service Comm., First Dist., New York State; Instrumentman, Draftsman, Estimator and Inspector on (6) construction of 14th St.—Eastern Subway, and on construction, track-laying and installation of equipment on 4th Ave. Subway, Brooklyn; from Jan. to July 1917 acted as Asst. Engr. in charge of subsurface relocation and underpinning of buildings, on Sec. No. 5, supervising force, including personal supervision of design, etc.: July to Dec. 1917 Chf. Draftsman, Mason & Hanger Co., Richmond, Ky., on construction of Camp Zachary Taylor, Louisville, Ky., in charge of designing and drafting at the Camp, including special designs and alterations, charge of material distribution, supervision of work and assistants: Dec. 1917 to July 1918 Chf. Estimator, American International Shipbuilding Corporation, Hog Island, Pa., in charge of estimating, drafting, material distribution and accounting in Plant Eng. Dept., including material surveys, adjustment of designs to material and cost accounting data: July 1918 to Feb. 1919 Asst. Engr., Liberty Shipbuilding Co., Wilmington, N. C., acting as Special Asst. to Chf. Engr. in organizing departments, etc.; on construction of shipyard made special investigations and reports, suggesting changes in design and location of buildings and shipways, acting as Technical Adviser to Supt. of Supplies, etc.; assisted in design of formwork, scaffolding, etc., for construction of concrete ships, and when ships were building organized and had charge of the Progress and Cost Dept.; Feb. 1919 to date Field Engr., Portland Cement Association, Pittsburgh, Pa., in charge of work (of advisory or consulting nature) in six counties in southwestern Pennsylvania, including assisting of engineers in design and construction of various structures and highways using cement, revising designs and specifications, cross-sections, drainage, etc., and supervising construction in conjunction with engineer in charge; practically designed municipal swimming pool at Johnstown, Pa., and materially assisted on Johnstown Sewer System, Johnstown bridges, Indiana (Pa.) sewer, Hooversville sewer, various concrete buildings and on erection and operation of several concrete products plants: Registered Prof. Engr., Commonwealth of Pennsylvania. (Active practice 11.4 years: Sub-Prof. work 2.3: Prof. work 9.1: Res. Ch. 7.2: Design 3.1). Refers to S. C. McKee, T. Pealer, J. W. Pickworth, R. T. Somers, A. C. Toner.

MOWER, LELAND MONROE, JUN. AM. Soc. C. E.—834 Bush St., San Francisco, Cal.—(elected Sept. 12, 1921.) (Age 29. Born Auburn, Me.) (B. S. in C. E., Univ. of Me., 285 1917.)—July to Oct. 1915 Rodman and Chainman, Jackman-Kineo Highway, State of Maine: June to Oct. 1916 Inspector in manufacture of 6-in. shells, American Brakeshoe (13)& Foundry Co.: May to Oct. 1917 and Jan. 1919 to May 1923 with U. S. Coast and Geodetic Survey, first as Deck Officer and finally as Jun. Hydrographic and Geodetic Engr., Chf. of Party in construction of tall hydrographic signals, Chf. of subparties in Alaska: Oct. 1917 to Dec. 1918 with U. S. Army first as Private in Field Artillery with Battery Commander on firing data; July 1918 commissioned 2d Lieut. of Engrs. with 138th Light Railway Troops at Ft. Harrison: June to Aug. 1923 Instrumentman on roads, Duval County, Fla.: Sept. 1923 Inspector, Bureau of Public Works, Miami Beach, Fla.: Oct. 1923 to date Inspector, Bureau of Public Works, San Francisco, Cal., on inspection of streets, sewers and railroad construction: Jan. 1924 commissioned 1st Lieut., Engr. Officers' Reserve Corps. (Active practice 6.7 years: Sub-Prof. work 2.4: Prof. work 2.3: Res. Ch. 1.9). Refers to H. S. Boardman, F. S. Borden, W. D. Chamberlin, R. B. Derickson, R. L. Faris, W. E. Parker, G. T. Rude.

- RUFF, CHARLES FREDERICK, JUN. AM. Soc. C. E.—52 Ibis St., Forest Hills, N. Y.—(elected March 7, 1921.) (Age 28. Born Missoula, Mont.) (C. E., Lesigh Univ., 1920.)—286 July and Aug. 1916 Tracer, Pennsylvania R. R., Rodman; June and July 1917 Hull Inspector, Pennsylvania Shipbuilding Co., checking material: July 1917 to Aug. 1919
- (1) Private and Corporal, Co. B, 103d Engrs., 28th Div., A. E. F., topographic surveying, reconnaissance, military bridge building, etc.: June 1920 to May 1922 Draftsman, Surveyor and Res. Engr. with Hazen & Whipple, New York City, drafting, detailing, designing, charge of topographic survey and of building elevated tank foundations: May 1922 to date Supt., Water Dept., Long Beach, N. Y., operation of water-works, design and Res. Engr. on addition to light and water plant, Res. Engr. on filter plant (500 kw. generator, two 184-h. p. boilers and two 3 000 000-gal. pumps). (Active practice 5.9 years: Sub-Prof. work 2.6: Prof. work 3.2: Res. Ch. 2.2: Design 1.3). Refers to C. Elcock, C. M. Everett, R. J. Fogg, W. E. Fuller, A. Hazen, H. M. Pirnie.
- SUN, YU-FONG PHILANDER, JUN. AM. Soc. C. E.—2 Taku Rd., Tientsin, China—(elected April 19, 1920.) (Age 31. Born Yangchow, China.) (C. E., Cornell Univ., 1918.)—287 May to Sept. 1918 Rodman, Thomas & Sturatt Co., U. S. Nitro Plant C, Nitro, W. Va.: May 1919 to Sept. 1920 Asst. Engr. in Works Dept., Comm. for Improvement of River
- (1) System of Chihli, Tientsin, China, on design of reinforced concrete and steel works and especially of reinforced concrete base and steel rolling gates for Machang Lock of Machang Canal Project, and also in charge of Tientsin South Dyke construction: Oct. 1920 to date with Peking Suiyuan Line, until May 1921 as Inspecting Engr. on rails and railroad yard equipment; then Prin. Asst. to Dist. Engr., Fangehen to Suiyuan Dist., in charge of new construction, comprising concrete arches, dam, culverts, buildings, station yards, etc., and (about 10 months) acting for Dist. Engr.; since Oct. 1922 Sec. Engr. of Pin-Sha Sec., in charge of project for new extension on main line to Urga having completed the preliminary and final surveys and the location from Pintichuan to Pon-Chiang. (Active practice 5.1 years: Sub-Prof. work 0.4: Prof. work 4.7: Res. Ch. 2: Design 1.4). Refers to H. S. Chuck, R. D. Goodrich, P. T. Tong, J. G. Wong. (Applies in accordance with Sec. 1, Art. I of the By-Laws.)

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.